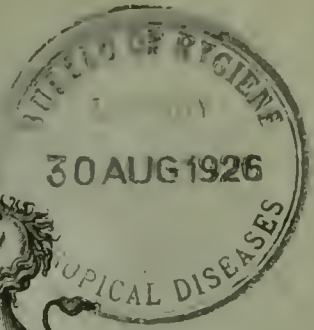


1923.



City and County of Bristol.
PORT OF BRISTOL.

ANNUAL REPORT
OF THE
Medical Officer of Health
INCLUDING
Report of Port Medical Officers
of Health.

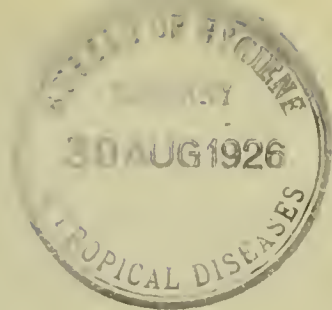
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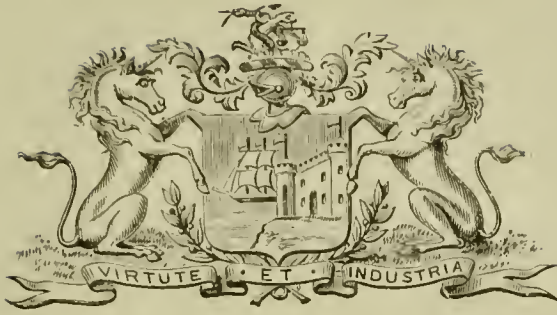


*With the Compliments
of the
Medical Officer of Health*

*Health Department,
40, Prince Street, Bristol.*



1925.



City and County of Bristol.
PORT OF BRISTOL.

ANNUAL REPORT
OF THE
Medical Officer of Health
INCLUDING
Report of Port Medical Officers
of Health.

Printed by order of the Health Committee.

BRISTOL :
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CITY OF BRISTOL.

ANNUAL REPORT, 1925.

My Lord Mayor, Ladies and Gentlemen,

In July, 1924, the City Council, wishing to co-ordinate as far as possible the medical work of the City, and recognising its enormous growth both in area and population during the past 40 years,* appointed the School Medical Officer to be Deputy Medical Officer of Health, at the same time strengthening the School Medical Service, and thus completed the consolidation of the medical Health services under one administrative Chief Medical Officer of Health already nominated Administrative Medical Superintendent of the City Hospitals in 1899 and Administrative Tuberculosis Officer in 1917. The Council further signified their wish for unity in the City Medical Health Services by appointing the Medical Officer of Health the "Principal Officer of the Medical Services of the City," which, though not a statutory appointment, sufficiently indicates their intention.

Possibly no more serious check to the harmonious growth and development of the Public Health Medical Services has arisen than the initiation of new measures of Public Health import in such manner that they might be met by the establishment of independent Officers ; thus leading to not infrequent causes for petty jealousy.

But full co-ordination over the whole of England can hardly come to pass until adequate facilities for all preventive work are assured by the economical establishment of a limited number of fully equipped sanitary areas of size adequate to meet the necessary financial responsibilities, in place of the thousand or more petty districts with exiguous means, in which a medical officer of health, however capable, must often be unfairly saddled with a responsibility beyond the possibility of his District to meet.

The Cripple or Physically Defective Child.

The inclusion of Education interests, hitherto independently administered, in the Health Department, gives opportunity to consider outstanding administrative needs. The question of immediate urgency is the care of the Cripple (physically defective) Child. While power to educate was conferred in 1899, the duty of making provision, institutional or otherwise, for dealing with them was not placed upon Educational Authorities until the Act of 1918, which came into operation in April, 1920.

	<i>Area in Acres.</i>	<i>Population.</i>
* 1885	4,500	220,000
1925	18,400	385,700
Increase	13,900	165,700

Orthopaedic surgery, stimulated by war experience, now includes not only operative measures, but a revolutionised code for re-education of function, etc., in impaired or paralysed limbs, which has proved of remarkable value.

It has been estimated that between half and one per cent. of the children of school age in England and Wales require treatment and education as cripples. The number of crippled children at school ages in Bristol has been estimated at 495.

During the year 1924 arrangements were made whereby children found by the Maternity and Child Welfare Staff to be suffering from various kinds of eye trouble or crippling diseases, such as rickets, infantile paralysis, etc., are referred to the School Clinics for appropriate treatment. During 1925, 67 cases of eye trouble and 22 of crippling disease were referred in this way.

The benefit to the child concerned is of great value, and mothers are pleased to avail themselves of the facilities for treatment thus afforded.

The Causation of Crippling.

The chief causes of crippling in children may be grouped thus :—

- | | | | |
|--|-----|-------|--------------------------|
| 1. Disease of bones or joints, generally
<i>tuberculous</i> in origin | ... | years | common age of onset, 1-8 |
| 2. All forms of paralysis, especially
<i>infantile paralysis</i> | ... | ... | 1-3 |
| 3. Heart disease, <i>Rheumatic Carditis</i> ,
Chorea | ... | ... | 4-10 |
| 4. Certain congenital defects, Talipes,
Scoliosis, <i>Rickets</i> , and accidents | ... | ... | 1-2 |

The London figures show that of 898 physically defective children, 160 were crippled by paralysis, 212 by tubercle, 92 by congenital or other deformity, 339 by heart disease, and 95 by other causes.

Schemes for Treatment of Cripple Children.

A scheme to be effective should include (1) early recognition, (2) orthopaedic treatment in hospital, with educational facilities, (3) following up in the homes, and (4) supervision of cases at Out-patient Clinics. Existing schemes are for the most part organised and administered under Voluntary Committees with official representation, Local Authorities participating in the scheme on a contributory basis.

Example.—In Shropshire the scheme is carried on by a Voluntary Committee and based upon the hospital at Baschurch with some 225 open air beds. Clinics are established for inspection and supervision. The defects treated include deformities congenital or acquired, paralysis, surgical tuberculosis and other defects. In one year, 109 children of school age were treated—33 for surgical tuberculosis, 28 for infantile paralysis, 5 for rickets, 6 for scoliosis, 21 for other deformities, and 16 for various diseases. The population served numbers

246,307. The School M.O. is a member of the General Committee, and the Health Visitors co-operate. The school at the Hospital is recognised for 45 children.

It must be borne in mind that the cure in many cases is necessarily prolonged—thus in various surgical forms of tuberculous disease in the Leasowe Hospital the stay averaged from 227 days to 687, but 74% of the cases were discharged with an arrest of the disease—a highly satisfactory result. In other diseases, the stay may not be more than two or three weeks for a simple tenotomy to six months for a case of infantile paralysis. The length of stay is much lessened by early recognition.

Crippling.

All cases of crippling due to Tuberculosis come within the Sanatorium scheme of the Health Committee, who contemplate developing their Frenchay Park Sanatorium into a complete Orthopaedic Hospital which will avoid the present inconvenience of sending cases to distant hospitals. The Council has already authorised provision of this sort. The Health Committee is also interested, under their Child Welfare scheme, in children under school ages suffering from various forms of paralysis. *It must not be forgotten, however, that about a third of the cases requiring Institutional treatment and prolonged rest will be found amongst children of school age suffering from Heart Disease, generally the result of Rheumatism.* It is of the first importance that these should be well provided for, and they cannot be included in the Tuberculosis scheme. The Board of Education definitely insist that an Orthopaedic Hospital should be under open air conditions in a country district, and have recently refused to recognise the City Hospitals for this purpose, so the only way to escape the reproach of having to send Bristol children to a Hospital near Bath is to provide one for Bristol itself.

SMALL POX.

No case has been introduced into the City during 1925, but in view of the continuing possibility of introduction it is expedient to reproduce these hints with regard to diagnosis :—

A Few Points in the Differential Diagnosis of Smallpox and Chicken Pox.

In examination, Examine the WHOLE Body, and in a good light.

One cardinal point is the characteristic distribution of the Smallpox eruption. Plate I. illustrates this. Though there is only a moderate quantity of eruption, there is most on the face ; after the face, on the hand and upper extremity. From the hand upwards the eruption diminishes in quantity. On the front part of the trunk it is deficient, especially on the abdomen.

Contrast with this Plate II., showing the distribution in the case of Chicken Pox. Here the eruption is most abundant on the trunk, and on the face it is more scanty than on the chest, the lineal gradation of quantity is what is usual in Chicken Pox, *e.g.*, more on the upper arm than on the fore-arm : the eruption also occurs in the axilla, which is unusual in Smallpox.

Many minor peculiarities of distribution on the face, neck ; on prominences, avoiding hollows of the body ; on places exposed to irritation, as by a tight garter, by a mustard plaster, etc., may be studied in detail in Rickett's Monograph.*

While this question of distribution is of prime importance, we must remember in this, as in every other disease, not to base our judgment on any one diagnostic point, but to observe all the points to be considered, and then make our diagnosis on the balance of evidence, for almost every single diagnostic point is liable to variation, whence may follow a wrong diagnosis.

Beware of the fallacy "*because there is only a sparse eruption therefore it must be Chicken Pox.*" As a fact, it is often the case that on a person partially protected, as by a distant vaccination, the total number of actual pocks is quite small, but the distribution of these few pocks on face, and forearms, and wrists, quite typical. On the other hand the Chicken Pox eruption may be, and often is, large in quantity, but must be sought for on face, and especially on chest and abdomen, as well as on the extremities, in which it usually prefers the upper arm and thigh.

Distribution alone, however, is occasionally apt to mislead, and attention must be paid to the character of the eruption itself. It is better to speak of the "eruption" rather than the "rash" when meaning the true Smallpox eruption, reserving the title of "Rash" for the various preliminary rashes which may occur during the primary fever.

Character of the Smallpox Eruption.

The papule—at first a pin's head fleck, soon swells up into a raised, hard, solid-feeling pink mass—the papule. In a day or two the round-topped papule gets vacuolated at top, enlarges and by the fourth day is grey and translucent. The smaller vesicles are hemispherical, the larger ones are flat-topped, and the top is sometimes indented. This cupping of the top of the vesicle is diagnostic only in the case of the *forming* vesicle ; spurious cupping may readily be observed in late pustules or in the pustules of Chicken Pox, when it may be due to absorption of some of the contents, and the consequent falling in of the roof of the pustule.

The vesicle remains clear only for some twenty-four hours ; it becomes dull and whitish, and ringed, and its contents turbid. It thus gradually becomes a Pustule. By the sixth day it has turned yellow, contains pus, swells up from flat to hemispherical, and is *mature*.

An areola—a narrow erythematous zone—surrounds the enlarging papule, and attains its height with the fully formed vesicle. The vesical of Smallpox is usually multilocular.

Depth of the Lesion.

By inspection and palpation it is possible to arrive at some decision as to the comparative depth of the lesion. The eye

* The Diagnosis of Smallpox by T. F. Ricketts, M.D.—The Waverley Book Co., 1908.



PLATE I.

Smallpox. From a photograph by H. C. Leat—a case in the Gloucester epidemic, 1923.



PLATE II.

Chickenpox. From Ricketts and Byles—"The Diagnosis of Smallpox."
By kind permission of the Publishers.

may be a better judge than the hand. The lesion of Smallpox which is situated in the mid-deeper layers of the *epidermis*, juts through the skin and lifts the horny layers above it *at an angle*. Lesions like Acne pustules, or deep-seated syphilides rooted in the deeper parts of the corium have a greater thickness of skin to push before them, and bulge up from below with a more gradual slope. On the other hand, superficial vesicles, such as those of Chicken Pox, appear to lie on the surface of the skin rather than within it. Though the vesicle of Smallpox has a steep gradient of slope, it joins the flat skin surface with a rounded angle. But the vesicles of Chicken Pox when the wall is thin enough, spring abruptly from the surface like bubbles on soapy water.

Chicken Pox.

Chicken Pox is not uncommon amongst adults, and occurs up to middle age, and adults get by no means sparse eruptions. Although prodromal fever in Chicken Pox is not the rule, it may occur, and Ricketts states that in very mild Smallpox the eruption may be the first symptom. My experience in the mild Smallpox of 1903 and 1904 was, however, that it was the rule to get a fairly severe prodromal fever, much out of proportion to the mildness of the subsequent attack. However, Ricketts is no mean authority, and one should be on guard.

Distinctive Characters of Chicken Pox Lesions.

Obvious superficiality of vesicles. Difference between scabs of Chicken Pox adhering to surface and the counter-sunk scabs of Smallpox.

Absence of loculation is a feature of Chicken Pox, but multilocular vesicles may occur in Chicken Pox, and unilocular vesicles are not an uncommon feature of Smallpox.

Outline of Chicken Pox Vesicles.

Many of the vesicles assume an oval outline, especially near flexures of the skin, owing to superficial vesicle following line of flexure. Many of the vesicles may have a jagged or irregular outline. On the other hand the vesicles of Smallpox preserve, as a rule, a definitely circular outline, but very superficial variolous vesicles may, by reason of their superficiality, present a somewhat irregular appearance. Two minor points—absence of umbilication in the forming vesicle, and efflorescence in crops. Indentation of a number of vesicles is good evidence against Chicken Pox, but not the dimpling of a few. The absence of the sign counts for nothing either way.

The presence of lesions in different stages of evolution on one and the same small area must not be always expected of Chicken Pox, and when it exists is not necessarily valid evidence against Smallpox, which in certain modified types shows somewhat the same condition.

Distribution.

Chicken Pox may appear on any part of the body—on the trunk, limbs, head, on the palms, soles, scalp, ears, palate and buccal mucous membrane. But the real seats of selection in

Chicken Pox are the trunk, to which it may be limited ; the face, where it may be as dense as on the trunk. Smallpox chooses the face before all ; next, the arms ; thirdly, the back or legs. While Smallpox least affects the front of the trunk, the eruption of Chicken Pox is often as abundant there as on the back, or more abundant, and Chicken Pox tends to avoid the limbs, but may affect them, when it shows no preference for the extensor surfaces, which Smallpox does.

These are some of the rules generally observed by these diseases, but exceptions to one or all of the rules may be met with and may thus make the correct diagnosis a matter of personal equation in assigning due weight to the various factors.

DIPHTHERIA.

The " Schick " Reaction—Protection by Toxin-Antitoxin.

The main importance of the Southmead outbreak (1921), is that it gave opportunity for acquiring a practical acquaintance with a procedure which, in the hands of observers in America, where Diphtheria appears to be far more in evidence than in England, has proved highly satisfactory in protecting threatened groups or communities against Diphtheria.

In order to ensure the adequate protection of the population, the New York system provides a Medical Service for carrying out the testing and immunising, especially amongst the School population.

Briefly the procedure is this: Upon the occurrence of a case of Diphtheria in a school or institution—

1. All contacts are first of all *tested* (Schick reaction) ; this test shows which are susceptible or likely to take the disease, and which are insusceptible. This is determined in the course of a few days.
2. All susceptibles are then *protected* by the proper administration of the protective agent—reinforced on two occasions at weekly intervals, when an active immunity is developed which is found to persist over at least three and a half years.

The necessity for immunising the City Hospital Staff was emphasised by the fact that within three months four members of the Nursing Staff at Ham Green contracted Diphtheria, while six members of the Novers Hill Staff also suffered, though no Diphtheria was knowingly admitted to the Wards. In 1920, no less than 12 members of the Staff at Ham Green contracted Diphtheria, one of whom died of a virulent attack ; and in 1921, 11 further cases occurred.

The Health Committee, recognising the very great risk run by unprotected nurses in dealing with the severe type of Diphtheria prevalent in recent years, decided in 1922 to afford protection to their staff, so that they might enjoy a similar immunity in regard to Diphtheria as they have for many years experienced in regard to Smallpox.

Setting aside for the moment the gain in escaping weeks of sickness, the economic value to the City is appreciable. Thus 329 working days have been saved.

The Resident Medical Officer informs me that he has in this way protected some 300 members of the Hospital Staff since January, 1922, and in no instance has the reaction been severe enough to cause them to go off duty; also, up to February, 1925, no completely immunised member of the Staff has ever developed clinical Diphtheria, although one or two have had sore throats, found morphologically to be caused by the bacillus of Diphtheria. The organisms have in each case been tested and found to be non-virulent.

On 12th February, 1925, however, an immunised nurse had a semi-membranous throat, and gave a morphological result of K.L.B., which was tested for virulence, and proved to be highly toxic to the guinea pig. The patient suffered only from a modified attack and made an uninterrupted recovery without antitoxin.

In brief, while a high degree of immunity is generally enjoyed by fully immunised nurses though in the closest contact with virulent clinical Diphtheria, the few who do contract the disease appear to be protected against dangerous or fatal attacks.

(See Dr. Peters' Report—under "Ham Green Hospital.")

I have taken this opportunity of pointing out the constant sickness and regrettable mortality caused year by year by Diphtheria in the City in the hope of stimulating a demand for effective preventive measures. Until recently this prevalence appeared to be unavoidable and endeavour was devoted to limit the spread from known cases, with none too favourable success. One or two school outbreaks have caused serious loss of school time as well as danger to the attacked, and even Hospitals Staffs have fallen sick and caused added pressure on the few available beds. The remarkable results recorded by Dr. Peters amongst the Ham Green Staff prove that our original guarded scepticism was unjustified, and now that the disease is definitely preventable it is unwise to persist in the old way and to fill hospital beds unnecessarily. Just as we have protected our own nurses so every school and every institution ought to insist upon the protection of its scholars against Diphtheria. The protection of communities undertaken on a large scale in America has only been adopted in isolated instances in England. In Scotland, however, during 1924 the first serious attempt in this country to protect all the school children against Diphtheria was made by Drs. Robertson and Benson in Edinburgh. The work is reported at length in the *Lancet*,* but, briefly, it may be noted that parental consent was obtained for the testing and protection of 43.3% of the children on a first application, and at a later visit to a school, consent was obtained to immunise 50% of the remainder, this

* "The Lancet," November 8th, 1924—p. 949. Diphtheria prevention Robertson and Benson.

shows that the parents were satisfied that the children protected on the first occasion had not suffered in any way from the process.

MATERNITY AND CHILD WELFARE.

Excellent as is the work secured under the existing Regulations and within the available powers, it has always been present at the back of one's mind that in order to be truly preventive rather than merely palliative, the question of good parentage ought to be brought within the arena of social politics not only in relation to maternity and child welfare, but also in relation to School work, in regard to which the Professor of Education at St. Andrew's University has wisely remarked "the most important requirement in Education is the possession of good parentage." If this is true of Education, as it undoubtedly is, it is doubly true in regard to Infant Welfare. Much spadework in the way of propaganda will be needed before the Eugenic idea, so misunderstood and so little popular, comes into practical politics.

With regard to propaganda, the mere arrangement of a course of Lectures appears to me to be inadequate and ineffectual, and audiences attending a free show without any present personal interest in the subject will derive little or no benefit beyond exchange of confidences on local gossip; advice proffered in the homes when sickness is present by a tactful and well-trained Health Visitor or Home Nurse, or given at the School for Mothers where all the interest is centred on babyhood, is fruitful in good results, and it is by extension of this work rather than by the academic multiplication of lectures that the greatest good is to be secured.

FLUES FOR GEYSERS.

In the Annual Report for 1923 I dealt at some length with the danger of fixing Geysers without proper flues to carry away the products of combustion, which had already caused five deaths in little over a year; and I reprinted the Gas Company's excellent memorandum of warning. The warnings have apparently been disregarded, and powers are being sought in a Corporation Bill to deal with the danger.

The Gas Company has issued very complete technical instructions to plumbers as to the proper manner of installing gas apparatus, so there should be no room for misunderstanding.

During 1925 another case of nearly fatal poisoning by the fumes from an unventilated Geyser came under notice.

CANCER OF THE BREAST.

During 1925, an enquiry was instituted at the request of the Ministry of Health. 225 cases were investigated, and a number of very interesting and important results obtained. These results specially tend to show the enormous value of the early operative treatment of Cancer; for example, a number of patients operated on from 13 to 15 years ago were found to be perfectly well at the present day.

The investigation of these cases was very efficiently carried out by Miss M. E. Golding, M.B.

Summary of Results.

Both periods	Alive	Dead	Unable to trace	Total
1910—1913 } 1919—1921 }	69	141	15	225
1910—1913	24	73		97
1919—1921	45	68		113

Percentage Results.

Both periods	Untraced, 6·6%.			
	Of 210 traced, 32·8% Alive, 67·2% Dead.			
1910—1913		25	„ 75	„
1919—1921		40	„ 60	„

Four cases of recurrence were found ; all the other survivors were well.

HOSPITAL ACCOMMODATION.

The deficiency in Hospital accommodation, and its failure to increase commensurately with the increase in population, has been noted for some years, and in 1914 suitable extensions were authorised by the City Council and approved by the Local Government Board, but were deferred owing to the War. In the meantime, expenditure in relation to Tuberculosis, Infant Welfare and Venereal Disease has risen so enormously that progress in other directions is checked, and at the same time a campaign has been started decrying the value of Isolation Hospitals. Many of the criticisms err in dealing with communicable diseases as a whole, whereas they differ from one another so materially in causation and methods of spread, that the relative value of Hospital Isolation varies for each form of disease. For example, there can be no question that isolation is imperative for preventing spread of Small-pox, while in Diphtheria, this end, though also served, is perhaps secondary to the advantage in life-saving of specialised medical service and of necessary operative relief immediately at hand. Scarlet Fever has proved disappointing to the ingenuous aspirations of the 'seventies, but isolation in this disease, as in Measles coming from overcrowded houses, means not only saving of life but avoidance of the evolution of septic types of disease. Isolation Hospitals are erected out of the rates, not to save trouble to householders who have means of isolation at hand, but to protect the public by isolation where this is impossible owing to home conditions. It is the judicious use of a reasonable amount of hospital room, rather than the indiscriminate use of a superabundance of beds, that is of public health value.

- The position in regard to Hospital accommodation which, in place of the approved 1 bed per 1,000, does not afford more than 240 beds in all for a population of 385,700 people, has been emphasised on several occasions during the present

century, and has caused considerable anxiety and grave difficulty in 1902-3-4, during a concurrent outbreak of Scarlet Fever and Measles, in 1913 with Scarlet Fever, and again during 1921 and 1922, when, in the absence of Clift House as a reserve, the Sanatorium Blocks have had to be pressed into service. Some projected hospital extensions were approved by the Council in 1914, when the war intervened.

Bearing these facts in mind, the Council on 8th April, 1924, approved the Health Committee's Report to provide 56 additional beds at Ham Green Hospital, the plans for which are now approved and the work is in hand and approaching completion.

HOME VISITATION OF INFECTIOUS DISEASES.

The total number of Notifiable and Non-Notifiable Infectious Diseases visited by the three Home Nurses during the year 1925 was :—

Scarlet Fever ...	...	...	1420
Diphtheria ...	...	...	1090
Erysipelas ...	...	...	220
Enteric Fever...	...	...	17
Cerebro-Spinal Fever ...	...	...	2
Malaria ...	...	...	4
Dysentery ...	...	...	1
Encephalitis Lethargica	...	...	60
Polio Encephalitis ...	...	...	—
Anterior Poliomyelitis ...	...	...	5
Whooping Cough ...	...	...	936
Chicken Pox ...	...	...	1782
Measles ...	...	...	5519
Mumps ...	...	...	382
German Measles ...	...	...	229
<i>Total Cases</i> ...			<hr/> 11,667 <hr/>

This total includes primary visits only and does not include many re-visits to home nursed cases to ensure that proper precautions against the spread of infection are being observed. Also the following diseases—Diphtheria, Encephalitis Lethargica, Cerebro Spinal Fever and Anterior Poliomyelitis—necessitate several re-visits to the home as the contacts are placed under supervision and spray treatment by the Home Nurses.

When a "First Case" of Measles is notified from certain Infant Departments of the Council Schools the whole of the class contacts are excluded from attendance from the ninth to the fifteenth day after onset of "First Case" and placed under the supervision of the Home Nurse who is responsible for watching and reporting any illness among the contacts during the period of exclusion.

Many abortive visits are paid to cases of Infectious Disease before the necessary particulars for the information of the Medical Officer of Health can be obtained.

SCHOOL MEDICAL SERVICE.

The number of children attending the Board Schools in September, 1897 before the extension of the City was 18,077, and attending other schools was 21,868 ; or a total of 39,945. In 1898 the City was enlarged, and again in 1904, and by January, 1915, the total on the Education Committee's School Registers was 59,863. Since 1905, the Education Committee have excluded children under 5 years of age from certain schools, but in some poor districts children under five are admitted. In 1925, 54,477 children were on the Registers of the 90 schools in the City.

The School Medical Service has been provided by the Education Committee under the Education Administrative Provisions Act, 1907, etc., independently of the Health service, and has after various tentative arrangements, developed under the whole time medical guidance of Dr. Askins who was appointed School Medical Officer in 1914, and issues a separate Report. In 1924, the School and Health work was combined by the appointment of the School Medical Officer as Deputy Medical Officer of Health.

I am, my Lord Mayor, Ladies and Gentlemen,

Your obedient Servant,

D. S. DAVIES, M.D., LL.D., D.P.H., etc.

Medical Officer of Health, City and County and Port of Bristol; Principal Officer of the Medical Services of the City; Lecturer in Charge of Public Health, University of Bristol, and Internal Examiner to the University; sometime Examiner to the Universities of London, Cardiff and Belfast, and to the Conjoint Board; late Medical Inspector to H.M. Loc. Govt. Bd on Cholera Survey and General Sanitary Survey of England; Surgeon-Col. 1st Glos. R.G.A. (V.), ret'd. V.D. Lt.-Col. R.A.M.C. (T.), ret'd., etc.

NATURAL AND SOCIAL CONDITIONS.

Area (in acres) ... 18,445 acres.

Population (census 1921) ... 376,975 (173,783 males)
(203,192 females).
Persons per acre, 20.5.

Population, 1925 (estimate) ... 385,700.

Physical features and general character of the area.

Site and Soil.

Bristol is situated in N. Lat. $51^{\circ} 27' 6.3''$ and W. Long. $2^{\circ} 35' 28.6''$. The old City lies in great part on low ground in a broad valley lined by the alluvial deposit of the Avon, and its tributary the Frome : parts of the City, *e.g.*, High Street and Redcliff, being upon higher ground on the new red sandstone (trias), through which rock the New Cut or artificial course of the Avon has been made, and upon which Bedminster is built.

The high table-land of Clifton, Cotham, and Redland, to the north and west of the City, is situated upon the denuded edges of an anticlinal arch of carboniferous rocks, upon which, in certain limited areas, beds of newer formation (*e.g.*, lias), lie unconformably. On Clifton and Durdham Down the carboniferous limestone is exposed over a large area ; and here the gorge of the Avon, cut by the river as it turns to the north to join the Severn, forms the western boundary of the district.

The steep ascents, extending from Granby Hill on the west, past Brandon Hill to St. Michael's Hill and Marlborough Hill on the east, are on the outcrop of the millstone grit.

Considerable portions of the north-east and east parts of the City lie upon the new red sandstone, while Totterdown, part of Cotham, and the slope towards Ashley are upon beds of lias limestone.

Parks and Open Spaces.

The Parks and open spaces available for the recreation of the people comprise in all $923\frac{1}{4}$ acres, including Clifton and Durdham Downs which have a combined area of 442 acres, and Shirehampton Park (99 acres). Of the $923\frac{1}{4}$ acres, $919\frac{1}{2}$ are laid out as public Parks, gardens or playgrounds. Cricket pitches are allowed on Durdham Down and in 5 of the Parks, where also Bowling Greens and Tennis Courts have been provided. In two Parks, lakes have been provided with boats.

Number of inhabited houses (1921)—

Structurally separate dwellings occupied—72,470.

Rooms occupied—408,040.

Rooms per person—1.13.

Number of families or separate occupiers (1921)—

Private families—91,171.

Population in private families—361,578.

Rateable value—

District Rate—£2,113,585.

Sum represented by a penny rate—£8,331.

Chief Occupations of the Inhabitants of Bristol (Census 1921).

<i>Males.</i>			Total over 12 years of age.
Agricultural occupations	...	...	1,526
Mining and Quarrying occupations	...	...	1,726
Workers in Chemicals, Paints, &c.	...	...	1,115
Metal Workers	...	...	12,795
Electrical apparatus makers, fitters, &c.	...	...	1,157
Makers of textile goods, and articles of dress...	...	...	4,468
Makers of foods, drinks, and tobacco...	...	...	4,820
Workers in wood and furniture	...	...	6,582
Paper workers, printers, &c.	...	...	3,611
Builders, bricklayers, &c.	...	...	4,537
Painters and decorators	...	...	2,864
Transport workers	...	...	19,885
Commercial and financial occupations	...	...	12,686
Public Administration and Defence	...	...	3,476
Professional occupations	...	...	3,231
Persons employed in personal service	...	...	3,028
Clerks, draughtsmen, typists, &c.	...	...	7,336
Warehousemen, packers, &c.	...	...	4,317
Stationary Engine Drivers, &c.	...	...	1,193
<i>Females.</i>			Total over 12 years of age.
Makers of Textile goods, and articles of dress			8,335
„ „ Foods, drinks, and tobacco	...	...	6,017
Paper workers, printers, &c.	...	...	5,028
Commercial and financial occupations	...	...	5,725
Professional occupations	...	...	4,125
Persons employed in personal service	...	...	15,530
Clerks, typists, &c.	...	...	4,954
Housewives, packers, &c.	...	...	4,681
<i>Total occupied :—</i> Males			115,617.
Females			58,486.

VITAL STATISTICS.

Births.

During the year 1925, 6,700* births were registered, corresponding to an annual rate of 17.36 per 1,000 population, compared with a rate for 1924 of 18.67, for 1923 of 19.33, for 1922 of 19.92 and for 1921 of 22.03. The Birth Rates as corrected by the Registrar General are—for 1925, 17.9 ; for 1924, 18.4 ; for 1923, 19.5 ; for 1922, 20.1 ; and for 1921, 22.3. (The rate would be better calculated, not on population, but as a rate per 1,000 women living at child-bearing ages (15—45).

The birth-rate, which for the decade 1880-89, was 31.4, steadily declined year by year to a minimum in 1918 of 16.1. A similar decline during the last 40 years has been noted in most civilised countries.

* Total Births registered in Bristol during 1925—6,898.

259 Outward Transfers have been deducted, and (see Table p. 19).

61 Inward „ „ „ added.

The causes of decline in the birth-rate in recent years are chiefly four —

- (1) Deliberate birth control.
- (2) Postponement of age of marriage.
- (3) Increasing celibacy due to cost of living and employment difficulty, and, during the war.
- (4) Absence of men from country on war service.

The social bearings of high and low birth-rates and infant mortality rates may be summarised thus :—

- (1) A high birth-rate with many surviving children will in time cause industrial overcrowding.
- (2) A high birth-rate with high infant mortality rate is simply deplorable.
- (3) A low birth-rate with few survivors is equally undesirable.
- (4) A low rate with many survivors may possibly mean the solution of many social difficulties.

A vast population, more than a country can support, needs Colonial outlet, or means starvation, and this condition in Germany may have been one direct cause of the War. Colonies need sea-control and command of the Channel Ports. On the other hand, the development of a country may be delayed owing to lowness of birth-rate. A happy mean is desirable.*

Marriages.

3,015 marriages took place within the Borough of Bristol during 1925, compared with 2,924 in the year 1924. The annual marriage rate per 1,000 is thus 7.8 compared with 7.6 in 1924.

Infant Mortality.

The Infant Mortality rate per 1,000 births for 1925 was 75.8, compared with a rate for 1924 of 71.68, for 1923 of 62.49, for 1922 of 74.1, and for 1921 of 67.8. The Infantile Mortality Rates as corrected by the Registrar-General are for 1925, 76 ; for 1924, 69 ; for 1923, 69 ; for 1922, 71 ; and for 1921, 66. The rate for the decade 1890-99 was 147.5, with a birth-rate of 29.0, and the infant mortality rate did not show notable decline until 1907, when it fell to 100.9. In 1910, the rate was 90.3, but again rose in 1911 (a remarkable summer with warmth prolonged into autumn) to 142.8. Since 1915 it has only exceeded 100 in one year, 1917, when it was 102.0. The early summer of 1921, when the infant mortality was at its lowest, was remarkable for its warmth and continuous drought, but this was not continued through the later summer months.

One chief factor in infant mortality is the infant diarrhoeal mortality accompanying continued high temperatures in the late summer and autumn.

* Hewlett & Nankivell—Principles of Preventive Medicine, 1912.

Some part at least of the improvement may be ascribed to Infant Welfare Work, how much it is hardly possible to say until we are subjected to the acid test of prolonged summer heat.

Death Rate.

The recorded Death Rate for 1925 (uncorrected for age and sex distribution) is 13.34, calculated on a population of 385,700, estimated to mid-year, 1925, compared with 12.80 in 1924, 11.72 in 1923, 13.2 in 1922, and 11.4 in 1921.

The adjusted Death Rate as given by the Registrar-General for 1925 is 13.2, for 1924 is 12.0, for 1923 is 11.2, for 1922 is 12.8, and for 1921 is 11.1.

When we find that, at the date of Clark's Report, 1850, the average general death rate over a period of 7 years was 27, in the 'seventies averaged about 21, in the 'eighties from 16 to 19, and has fallen steadily to the present time,* there would seem to be reason for congratulation. So there is, and the gradual and continuous improvements form an index no doubt of the social betterment in domestic conditions, of the influence of the "New Humanity" continued from the eighteenth century and fostered by Lord Shaftesbury and others, in regard especially to conditions of employment, to the provision of the prime necessities for decent communal existence, unpolluted water and efficient removal of waste matters, supplemented by supervision of things possibly harmful, and, more important, by some supervision of persons, and aided by some rudimentary development of a "Sanitary conscience" in the individual.

Under these influences general morbidity and mortality would be likely to decline from general diseases, as well as from that small group of intestinal communicable diseases exemplified by Cholera and Typhoid, which are directly amenable to "sanitary" influence as generally understood. "Sanitary" endeavour alone has probably done most of what it can towards control of disease, it must be maintained, but other more direct means founded on knowledge of the etiology of individual diseases are necessary in addition.

The most fatal of the communicable diseases are shown in these figures for the ten years, 1906-1915 and 1916-1925, none of which bear any direct relation to insanitary conditions :—

			1906-1915	1916-1925
			<i>Deaths.</i>	<i>Deaths.</i>
Measles	...	...	940	811
Whooping Cough	...	...	845	458
Diphtheria	...	...	510	565
Scarlet Fever	...	...	161	111
Smallpox	...	...	19	1
			<hr/>	<hr/>
			2,475	1,946

which averages 247 a year for the first period 1906-1915 and 194 for the period 1916-1925.

* In 1918, Influenza mortality raised the death-rate to 17.1.

The efficient safeguards are Hospital accommodation, an adequate medical staff for enquiry into home, school or institution infectious sickness before the development of an epidemic, and time and opportunity for continuous pathological investigation and research.

COMPARATIVE RATES.

	Death Rates.					Infant Mortality Rates.				
	1921	1922	1923	1924	1925	1921	1922	1923	1924	1925
Birmingham	11.2	11.9	10.7	11.5	11.5	82	85	71	80	75
Liverpool	14.3	14.5	13.5	13.3	13.7	105	94	98	102	98
Manchester	13.6	14.0	13.1	13.7	14.1	94	94	85	97	92
Sheffield	12.5	11.6	11.3	11.5	11.5	98	81	89	88	83
Leeds	13.5	13.7	12.6	14.1	12.5	96	97	85	102	87
Bristol	11.0	12.8	11.2	12.0	13.2	66	71	61	69	76

(Registrar General).

Birth-rate, Death-rate, and Analysis of Mortality during the Year 1925.

(Provisional figures. The rates for England and Wales have been calculated on a population estimated to the middle of 1925, while those for the towns have been calculated on populations estimated to the middle of 1924. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns).

	BIRTH RATE PER 1,000 TOTAL POPU- LATION	ANNUAL DEATH-RATE PER 1,000 POPULATION.								RATE PER 1,000 BIRTHS		PERCENTAGE OF TOTAL DEATHS.			
		All Causes	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria	Influenza.	Violence.	Diarrhoea and Enteritis (under 2 years).	Total Deaths under One Year.	Causes of Death certi- fied by Medical Practitioners	Inquest Cases.	Uncertified Causes of Death.
England and Wales	18.3	12.2	0.01	0.00	0.13	0.03	0.15	0.07	0.32	0.47	8.4	75	92.1	6.9	1.0
105 County Boroughs and Great Towns, including London	18.8	12.2	0.01	0.00	0.17	0.03	0.18	0.09	0.30	0.43	10.8	79	92.1	7.3	0.6
157 Smaller Towns (1921 Adjusted Populations 20,000—50,000	18.3	11.2	0.01	0.00	0.15	0.02	0.14	0.06	0.31	0.38	7.6	74	93.0	5.9	1.1
London	18.0	11.7	0.01	0.00	0.08	0.02	0.19	0.11	0.23	0.46	10.6	67	91.1	8.9	0.0

CITY OF BRISTOL.

Cases of Infectious Disease and Tuberculosis notified during the Year 1925.

Notifiable Diseases.	Cases Notified in Whole District							Total Cases Notified in each Locality.										No. of Cases Removed to Hospitals and Sanatoria from each Locality.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	At Ages—Years.							Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Public Insts.	Not belonging to Borough	Port Cases	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip	Stapleton	Westbury-on-Trym	Public Insts.	Not belonging to Borough	Port Cases																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	At all Ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65 and upwards																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Small-pox

† Cases coming to the knowledge of the M.O.H. otherwise than by Notification. (Not included in totals of Notifications.)

CITY OF BRISTOL.

Causes of, and Ages at, Death during the Year 1925.

ESTIMATED POPULATION (1925).			Deaths in Whole District at Subjoined Ages.									Deaths in Localities (at all Ages).												*Correct'ns made for Transferable Deaths.
For Death Rates 385,700																								
„ Birth „ 386,000																								
Cause of Death.			All Ages	Under 1	1 & under 2	2 & under 5	5 & under 15	15 & under 25	25 & under 45	45 & under 65	65 & upwards	Ashley	Bedminster	Bristol Central	Clifton	Knowle	St. George	St. Philip†	Stapleton	Westbury-on-Trym	Mun. Institutions (Home Add. unknown)	Total Deaths in Public Institutions	Inward Transfers	Outward Transfers
																						(2Port)	(+)	(-)
1	ENTERIC FEVER	4	1	2	..	1	1	3	5	..	2
2	SMALL-POX	8	35	45	24	2	64	59	10	3	..	55	..	1
3	MEASLES	250	34	103	91	20	2	1	3	6	1	2	7	6	2	1	..	21	1	..
4	SCARLET FEVER	29	1	2	10	9	6	1	..	..	..	6	25	5	5	1	11	19	2	..	14	..	1
5	WHOOPING COUGH	74	26	32	16	..	..	..	..	..	..	3	21	14	10	1	13	8	3	1	69	1	1
6	DIPHTHERIA and CROUP	74	4	9	34	24	2	1	..	..	..	42	25	8	19	7	14	12	8	5	24	3	4
7	Influenza	113	1	3	2	2	8	18	37	42	15	25	8	19	7	14	12	8	5	1	11	..	1	
8	Erysipelas	14	1	3	6	4	..	1	4	1	..	4	2	1	1	1	..	11	..	1
9	Phthisis (Pulmonary Tuberculosis)	367	3	1	4	12	93	133	105	16	32	60	42	31	20	79	57	36	9	1	149	9	7	
10	Tuberculous Meningitis	36	3	3	7	13	7	2	1	..	6	7	5	3	..	9	4	2	..	..	29	..	3
11	Other Tuberculous Diseases	52	2	..	4	9	9	16	9	3	5	5	8	7	2	9	10	4	1	..	30	2	4	
12	Cancer, malignant Disease	502	..	..	3	3	2	31	225	238	83	70	55	80	22	79	54	36	21	2	188	2	48
13	Rheumatic Fever	16	..	..	1	5	2	4	3	1	..	3	2	2	..	5	3	2	1	..	2	1	..
14	Meningitis	12	5	..	2	2	2	..	1	..	1	1	2	2	..	2	2	2	2	..	10	..	1	
15	Organic Heart Disease	554	1	1	6	11	36	157	341	83	95	52	92	20	96	45	38	28	5	..	99	11	13	
16	Bronchitis	421	27	12	6	3	9	64	297	37	68	69	48	33	67	63	26	7	3	..	75	..	4	
17	Pneumonia (all forms)	427	68	42	33	17	11	74	70	112	31	64	54	47	11	94	64	45	13	4	184	6	13	
18	Other Diseases Respiratory Organs	72	1	1	2	2	..	10	26	30	11	13	11	7	1	10	9	8	2	..	20	2	5	
19	DIARRHŒA and ENTERITIS	69	66	3	..	7	2	..	11	7	4	13	6	10	2	16	13	3	2	..	41	..	3	
20	Appendicitis and Typhilitis	31	..	..	2	..	2	..	7	2	6	5	3	1	5	6	1	3	1	..	39	1	13
21	Cirrhosis of Liver	15	..	..	..	..	2	7	6	4	3	2	2	1	1	2	..	..	..	..	4	..	..
21a	Alcoholism	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
22	Nephritis and Bright's Disease	160	..	..	1	3	4	21	64	67	18	32	19	15	12	34	16	7	6	1	68	1	8
23	Puerperal Fever	19	..	..	..	5	13	1	..	..	3	3	3	2	..	3	3	2	..	..	24	..	11
24	Other Accidents and Diseases of Pregnancy and Parturition	20	..	..	..	5	13	2	..	..	3	3	3	1	..	5	2	3	..	..	13	..	3
25	Congenital Debility and Malformation, including Premature Birth.. ..	179	179	..	..	..	..	..	..	..	16	41	18	19	6	40	17	10	11	1	70	..	15
26	Violent Deaths	148	4	3	6	12	11	33	44	35	15	29	16	20	10	33	17	6	2	..	90	14	23	
27	Suicide	42	..	..	..	3	10	24	5	9	11	3	2	4	2	4	4	4	3	..	9	8	3
28	Other Defined Diseases	1445	82	11	18	16	35	105	337	841	218	213	172	207	75	210	168	121	49	12	636	26	138	
29	Diseases ill-Defined or Unknown	3	1	1	1	2	1	1
All Causes			5149	508	226	243	166	227	546	1192	2041	622	852	627	656	237	913	660	384	168	30	1979	88	326 (5Port)
Sub-Entries included in above figures	14a Cerebro-Spinal Meningitis	1	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..
	28a Poliomyelitis	1	..	..	1	..	..	..	..	..	3	1	..	2	..	1	5	1	1	..	11	..	4
	Encephalitis Lethargica	26	..	2	2	1	9	11	1	..	10	3	1	1	..	1	1	1	1	..	8	..	1	
	Venereal Disease	8	6	2	..	..	..	..	1	..	1	..	2	1	..	..	..	..	..	..	4	..	1
	Dysentery	3	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Polio Encephalitis .. ..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

CITY RATES.

*No. of Births		Birth Rate	Death Rate			Principal Epidemic Diseases (Zymotic Rate)	Infantile Rate
			This Year	Last Year	10 Years' Average		
M. 3460	F. 3240	17'36	13'34	12'80	13'73	1'29	75'8
6700							

Average age at Death of persons aged 65 and upwards .. 75 years 5 months.

Births of Illegitimate Children .. (Males 96 Females 90)—186

Total Deaths .. under 5 .. (" 18 " 26)—44

Inquests held in Bristol 465

Deaths of Infants under 1..

Total Number of Births Registered

44	95	66	53	15	95	82	40	15	3	218	2	30
M. 301	M. 523	M. 866	M. 389	M. 152	M. 575	M. 318	M. 273	M. 115	M. 43	..	..	..
F. 254	F. 534	F. 784	F. 402	F. 114	F. 547	F. 316	F. 227	F. 121	F. 44	..	..	..
555	1057	1650	791	266	1122	634	500	236	87	..	..	..

NOTES.

† The Registration Sub-District of St. Philip was merged into St. George and Stapleton Sub-Districts from 1st October, 1925.

* Transferable Births and Deaths.

Births.—In accordance with information received from the Registrar-General, 61 births (36 males and 25 females) have been added; and 259 births (131 males and 128 females) have been deducted from the total number, 6,898 (3555 males and 3343 females), registered in the City.

Deaths.—The total deaths registered in the City numbered 5,387. Of these, 326 were deaths of non-residents, chiefly occurring in Public Institutions, Nursing Homes, etc., and these have been excluded. Deaths of 88 Bristol residents which occurred in other Districts have been included.

The amount of Poor Law relief : the extent to which Hospital and other forms of gratuitous medical relief are utilized.

	30th Sept., 1925	31st March, 1926
Weekly cost of outdoor relief ...	£3,738	£4,010
Cases relieved	£4,481	£4,786
Persons relieved...	12,111	12,578

Average weekly number of persons in receipt of medical relief : 80.

Number of inpatients treated in Southmead Hospital during the year ended 31st March, 1926 : 2863.

CAUSES OF SICKNESS.

Small Pox.

No cases of Smallpox were reported during the year 1925. One case (" Port " introduction) was reported during 1924—no extension followed. The previous introduction, limited to 7 cases, occurred in December—January, 1920-21, and involved dislocation of the Sanatorium work at Novers Hill.

In 1903, under similar conditions, it was introduced into Bristol on 15 separate occasions, but was in no instance allowed to assume epidemic proportions.

During the last 42 years there have been 102 introductions of Smallpox into the City (23 of these were through the Port). (See Table).

The total number of known cases arising out of these introductions was 1236, and 126 deaths occurred.

This gives an average of 12 cases per introduction over the whole period.

Table showing Introductions of Smallpox since 1884.

Year.	Total Cases.	Total Deaths	Port Introductions.	Total Introductions	Remarks.
1884	7	—	—	3	
1885	33	10	4	13	Continuation of 1893 Epidemic 11 tramp introductions.
1886	85	8	1	6	
1887	163	13	—	4	
1888	224	26	1	2	
1889	1	—	—	1	
*1890	1	—	1	1	
1891	16	—	1	2	
1892	—	—	—	—	
1893	165	20	1	7	Continuation of 1893 Epidemic 11 tramp introductions.
1894	201	16	—	5	
1895	4	—	—	1	
1896	42	5	—	3	
1897	10	1	1	2	
1898	2	—	1	2	
1899	—	—	—	—	
1900	—	—	—	—	
1901	1	—	1	1	
1902	4	2	3	3	
1903	46	3	1	15	
1904	34	1	—	6	
1905	13	—	—	5	
1906	32	—	—	4	
1907	6	1	1	4	
1908	1	—	—	1	
1909	39	9	—	3	
1910	4	—	1	2	
1911	—	—	—	—	
1912	62	3	2	2	
1913	—	—	—	—	
1914	—	—	—	—	
1915	32	7	1	2	
1916	—	—	—	—	
1917	—	—	—	—	
1918	—	—	—	—	
1919	—	—	—	—	
1920	—	—	—	—	
1921	7	1	1	1	
1922	—	—	—	—	
1923	—	—	—	—	
1924	1	—	1	1	
1925	—	—	—	—	
Totals	1236	126	23	102	

* Compulsory Notification began.

It will be noted that since Notification attained full working efficiency, the limitation of introduced outbreaks has been very successful. Thus of the 15 introductions in 1903, 10 were limited to the original infected houses; and since 1895 the 58 introductions only produced an average of 5 resultant cases each.

Smallpox in epidemic form costs on an average £30 per case, hence this continuous limitation is of money value to the City.

Scarlet Fever.

The notifications and deaths by quarters numbered :—

		1st	2nd	3rd	4th	Total
1925	Quarter	Quarter	Quarter	Quarter	Quarter	
Notifications ...	336	301	330	527		1,494
Deaths ...	12	6	6	5		29

The disease was generally of a mild type, but if unsuitably circumstanced cases are not removed to hospital, home-over-crowding and consequent spread may result in development of septic complications and heightened mortality.

SCARLET FEVER.

	1	2	3	4	5
Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1890	559†	253	40	18	7.1
1891	888	400	37	17	4.1
1892	1,442	644	47	21	3.2
1893	1,245	553	35	16	2.8
1894	485	214	16	7	3.2
1895	562	252	16	7	2.8
1896	1,352	586	59	24	4.3
1897	511	220	18	7	3.5
1898*	382	120	14	4	3.6
1899	697	217	13	4	1.8
1900	1,971	606	39	12	1.9
1901	2,206	670	36	10	1.6
1902	2,724	793	66	19	2.4
1903	2,168	639	49	14	2.2
1904†	1,258	366	36	10	2.8
1905	1,085	302	39	10	3.5
1906	1,019	280	27	7	2.6
1907	886	240	26	7	2.6
1908	486	127	10	2	2.0
1909	692	183	12	3	1.7
1910	1,216	317	12	3	0.9
1911	953	266	16	4	1.6
1912	580	161	12	3	2.0
1913	1,738	471	6	1	0.3
1914	2,281	611	22	6	0.9
1915	1,069	302	18	5	1.7
1916	627	182	10	2	1.5
1917	257	76	3	1.3	1.1
1918	278	82	6	1.7	2.1
1919	363	100	2	0.5	0.5
1920	1,411	375	9	2.3	0.6
1921	1,576	412	7	1.8	0.4
1922	1,852	482	18	4.6	0.9
1923	1,444	374	19	4.9	1.3
1924	831	215	8	2	0.9
1925	1,494	387	29	7.5	1.9

* City Extended. † The City was further Extended in 1904.

‡ Notification commenced on February 12th, 1890, so that the case mortality for this year is probably overstated.

Diphtheria.

The notifications and deaths for the year were :—

		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1925	{ Cases ...	412	271	222	223	1,128
	{ Deaths ...	28	23	17	6	74
compared with						
1924	{ Cases ...	235	159	122	463	979
	{ Deaths ...	24	9	5	25	63
1923	{ Cases ...	218	115	121	283	737
	{ Deaths ...	11	6	7	25	49

In 1902, the deaths from Diphtheria numbered 189.

Arrangements are made for protection of the hospital staff, as authorised by the Committee (Schick method).

Early in 1922 the whole of the Ham Green Nursing and Domestic Staff (135) were tested, and the positives (33) duly protected with T.A.T. Each new entrant is similarly protected before undertaking the nursing of Diphtheria cases.

DIPHTHERIA (including Membranous Croup).

Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1890	56†	25	16	7	28.5
1891	70	31	16	7	22.8
1892	106	47	38	16	35.8
1893	141	59	53	23	37.5
1894	128	56	50	22	39.0
1895	165	69	34	14	20.6
1896	258	111	38	16	14.7
1897	205	88	36	15	24.7
1898*	217	68	44	13	20.2
1899	215	67	33	10	15.3
1900	512	157	103	31	21.1
1901	908	275	124	37	13.6
1902	1,109	325	189	54	17.0
1903	1,134	331	119	35	10.4
1904†	1,051	305	105	30	9.9
1905	1,021	284	59	16	5.7
1906	839	231	82	22	9.7
1907	926	251	68	18	7.3
1908	924	243	69	18	7.4
1909	712	188	55	14	7.7
1910	556	145	38	9	6.8
1911	584	163	42	11	7.1
1912	643	178	48	13	7.4
1913	762	206	33	8	4.3
1914	633	174	39	10	6.1
1915	505	143	36	10	7.1
1916	406	118	30	8	7.3
1917	376	112	27	12	7.1
1918	420	124	36	10	8.5
1919	448	124	27	7	6.0
1920	965	256	78	20	8.0
1921	1,426	373	107	28	7.5
1922	886	230	74	19	8.3
1923	737	191	49	12	6.6
1924	979	253	63	16	6.4
1925	1,128	292	74	19	6.6

* Enlarged City.

† City again extended in 1904.

‡ Notification commenced February 12th, 1890.

Antitoxin came into use about the year 1895, and was in general use early in the present century.

From 27th October, 1924 to 19th June, 1925, " P " Block at Ham Green (26 beds ordinarily used for Acute Female Phthisis cases) was utilised for nursing Diphtheria patients.

Enteric Fever.

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1925.					
Notifications ...	11	5	2	5	23
Deaths ...	—	—	2	2	4

This disease, one of the few dependent directly on “insanitary” conditions, is practically under control.

(Port cases excluded—6 notifications : 2 deaths).

ENTERIC FEVER (including Paratyphoid).

	1	2	3	4	5
Year	Cases Notified	Attacks per 100,000 Living	Deaths	Deaths per 100,000 Living	Case Mortality per cent.
1890*	122	55	33	14	27.0
1891	116	52	23	10	19.6
1892	135	60	18	8	13.3
1893	122	54	26	11	21.3
1894	90	39	21	10	23.3
1895	89	59	22	9	24.7
1896	110	47	20	8	18.1
1897||	343	147	47	20	17.4
1898†	113	35	26	8	23
1899	219	68	35	10	16
1900	293	90	44	13	15
1901	281	85	40	12	14
1902	319	93	58	17	18
1903	134	39	21	6	15
1904‡	172	50	26	7	15
1905	76	21	13	3	17
1906	120	33	21	5	17
1907	74	20	15	4	20
1908	103	27	10	2	9
1909	66	17	12	3	18
1910	85	22	9	2	10
1911§	148	41	18	5	12
1912	79	21	7	1	8
1913	64	17	5	1	7
1914	98	27	9	2	9
1915	45	12	13	3	28.8
1916	17	4	2	0.5	11.7
1917	52	15	4	1.7	7.6
1918	69	20	8	2.3	11.5
1919	33	9	6	1.6	18.1
1920	48	12	4	1.0	8.3
1921	25	9	2	0.5	5.7
1922	31	8	1	0.2	3.2
1923	32	8	5	1.2	15.6
1924	42	10	4	1.0	9.5
1925	23	6	4	1.0	17.4

* Notification commenced February 12th, 1890, so that the case mortality for this year is probably overstated.

† Extended City. ‡ City again extended in 1904.

§ Localised Outbreak in St. James'.

| Milk Outbreak introduced from the County.

Encephalitis Lethargica.

This newly-recognised disease was much in evidence in Bristol during 1919-20-21, when the Ministry instructed a special inquiry into its prevalence.* It continued in some excess over the first quarter of 1921 (45 cases—12 deaths), and thereafter subsided, to re-appear in excess in the second quarter of 1924, (120 cases—16 deaths).

1925.	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Cases ...	18	16	11	17	62
Deaths ...	11	3	6	6	26

During 1924 an enquiry was instituted into the serious late manifestations apt to follow this disease. The investigation was carried out for this Department by Dr. Dorothy Staley :—

* Reports on Public Health and Medical subjects.

No. 11. ENCEPHALITIS LETHARGICA—Dr. Allan C. Parsons
Ministry of Health, 1922. 10/- net.

Late Manifestations of Encephalitis Lethargica.

Survey of 76 patients whose illness commenced during the years 1919 to 1923.

Of 76 cases four could not be traced, four had died in the interval (of only two of whom reliable details could be found), and 26 had completely recovered. 44 showed late manifestations, many presenting a multiplicity of nerve lesions.

The following is a summary of the results found in the investigation :

Completely recovered	...	...	26	...	37.1%
Total inability to work	...	...	6	...	8.6%
Partial inability to work	...	...	15	...	21.4%
Apathy, Dullness, Drowsiness, Defective memory	...	...	17	...	24.3%
Dementia	...	...	2	...	2.9%
Viciousness	...	...	2	...	2.9%
Irritability, loss of will power, and other alterations of mentality	...	...	18	...	25.7%
Inversion of Diurnal Rhythm	...	...	1	...	1.4%
Squint	...	...	4	...	5.7%
Ptosis	...	...	2	...	2.9%
Nystagmus	...	...	3	...	4.3%
Pupils—defective reaction on convergence, irregularity	...	...	7	...	10.0%
Diplopia	...	...	5	...	7.1%
Paresis—Facial	...	...	11	...	15.7%
„ —Eyelids	...	...	3	...	4.3%
„ —Arm and hand	...	...	8	...	11.4%
„ —Leg	...	...	13	...	18.6%
Tremor—Tongue and lips	...	...	5	...	7.1%
„ —Arm and hand	...	...	10	...	14.3%
„ —Leg	...	...	4	...	5.7%

Speech—Stammering and slurring	...	7	...	10.0%
Parkinsonism	...	8	...	11.4%
Choreiform movements	...	2	...	2.9%
Involuntary movements—abdomen, hands or arms	...	5	...	7.1%
Constipation	...	6	...	8.6%
Thirst	...	5	...	7.1%
Hyperidrosis	...	4	...	5.7%
Excessive Salivation	...	5	...	7.1%
Spasmodic cough	...	1	...	1.4%
Dysphagia	...	1	...	1.4%
Severe headache	...	2	...	2.9%
Jacksonian Epilepsy	...	1	...	1.4%
Incontinence of urine or faeces (partial or complete)	...	4	...	5.7%
Abnormal Obesity	...	3	...	4.3%

In addition to the above, several patients complained that their sight had not been so good since their illness. As, however these were people of middle age, this was not included amongst the results of the disease.

A number of the patients were in a very grave condition, and in few was there any appearance of improvement taking place at present. Each patient was carefully examined by Dr. Staley, and, where necessary, statements were verified by reference to hospital records, etc.

Malaria.

	1st	2nd	3rd	4th	Total
1925	Quarter	Quarter	Quarter	Quarter	
Notifications	2	1	1	—	4
Deaths	—	—	—	—	—

As the anopheles mosquito, the “porter” of malaria, is not extinct in England, the Ministry is keeping a constant watch against the introduction of virulent types of malaria from abroad.

(Port cases excluded—8 notifications).

Influenzal Pneumonia and Acute Primary Pneumonia.

	1st	2nd	3rd	4th	Total
1925	Quarter	Quarter	Quarter	Quarter	
Notifications	186	155	61	199	601

These diseases are personal and most readily acquired in crowded assemblies.

Measles.

	1st	2nd	3rd	4th	Total
1925	Quarter	Quarter	Quarter	Quarter	
Deaths	97	148	4	1	250

During the year, 1833 cases of children over 5 years of age were reported from the Public Elementary Schools. All these were visited by the Home Nurses and precautions advised.

Hospital beds were found for 70 urgent cases at Nover's Hill and Ham Green.

During 1925, 250 deaths occurred from Measles. The previous prevalence was in the first and second quarters of 1918, when 207 deaths occurred. This disease recurs with fair regularity every 3 or 4 years. Available Hospital provision for urgent cases will save life.

The disease was notifiable from 1915 to the end of 1919, when notification was discontinued, so that we must again rely upon information from medical practitioners, home nurses and others as to cases urgently requiring attention, preferably to be given in hospital when hospital room becomes available.

Whooping Cough.

		1st	2nd	3rd	4th	Total
1925.		Quarter	Quarter	Quarter	Quarter	
Deaths	...	28	29	11	6	74

196 cases of children of school age were reported from the Public Elementary Schools, and the homes were visited by the Home Nurses.

Chickenpox and Mumps.

679 cases of Chicken-pox and 211 cases of Mumps occurring amongst school children were also reported and the homes visited by the Home Nurses.

Infantile Diarrhoea.

The small number of deaths (compared with 1911) from this disease through the summer is again noteworthy, and in large part accounts for the very low infant mortality. As a rule, extreme heat in the late summer and early autumn is accompanied by a considerable diarrhoeal mortality; the summer was not marked by extreme heat, and was fairly wet.

Deaths under 2 years of age :—

		1911	1913	1921	1922	1923	1924	1925
August	...	194	40	16	6	7	3	8
September	...	124	48	14	12	14	5	20
		318	88	30	18	21	8	28

As shown in detail in the Report for 1922, it is the prolongation of the summer heat wave into the late summer and early autumn that is accompanied by excess of Infant Mortality from Diarrhoea.

These indications were notably present in 1911, whilst in 1921 the extremely hot weather of July was not continued through August, and in 1922, though June was a hot month to begin with, it soon became cooler; and the weather was inclement, cold and wet, through August; September, though dry, showed a low temperature.

Bronchitis and Pneumonia.

These diseases amongst children under one year of age assist materially in raising the infant mortality rate, when inclement weather conditions prevail during the two winter quarters. A concurrent cold spring and hot August-September will thus bring about a high infant mortality rate ; the main factor is, however, summer diarrhoea. The average number of deaths in the two winter quarters for 15 years past is 88.7 More than 100 deaths were registered from bronchitis and pneumonia in infants in 1907-8, 1908-9, 1911-12, 1914-15, 1916-17 and 1918-19.

The effect of fatal intercurrent epidemics, such as measles, must also be taken into account as adding to the infant mortality.

Percentage to total deaths of infants under one year 1905-1924.

	Bronchitis, Pneumonia and other Diseases Respiratory Organs	Diarrhoea and Enteritis	Measles	Whooping Cough
1905	18.8	11.0	2.4	4.4
1906	14.6	14.8	2.5	4.3
1907	16.4	11.5	0.6	1.8
1908	21.5	13.3	1.9	5.8
1909	13.8	13.9	3.1	3.4
1910	16.3	11.1	1.3	4.8
1911	12.3	28.3	2.3	5.7
1912	25.0	7.0	4.2	3.3
1913	13.3	18.4	1.2	2.7
1914	16.6	14.7	1.1	3.5
1915	18.2	15.6	1.7	6.4
1916	15.8	13.7	3.0	1.4
1917	26.3	9.6	—	2.6
1918	16.7	12.0	5.2	3.3
1919	18.2	7.7	—	3.8
1920	20.4	10.1	3.5	1.0
1921	15.0	15.0	0.5	4.4
1922	22.2	8.2	1.7	2.1
1923	16.5	11.8	0.4	6.6
1924	25.7	7.1	0.5	0.9
1925	18.9	12.9	6.7	5.1

SANITARY CIRCUMSTANCES.

Water Supply.

A constant supply of water is assured during the year 1926.

The number of dwelling-houses connected with the Bristol Water Works Company's Mains is 80,112 ; this figure refers to houses inside and outside the City boundary.

Practically the whole of the inhabitants of Bristol are supplied by the Company for domestic purposes.

The number of houses supplied for domestic purposes by standpipes is negligible.

The Company's sources of supply consist of :—

Springs in the Carboniferous Limestone and the Conglomerates of the Mendip Hills.

Deep Wells in the New Red Sand Stone and Marls of the Triassic formation at Chelvey.

An impounding Reservoir in the Yeo Valley.

To guard against the contamination of the Company's sources of supply extensive drainage and protective works have been constructed at a cost approaching £200,000.

The Company's waters are not liable to have plumbo-solvent action.

During the year 1925, the Company continued to carry out drainage and protective works wherever circumstances arose which would be likely to cause contamination of the Sources.

Sewerage, Drainage and Excrement Disposal.

Bristol is completely sewered, cesspools are not countenanced, and no dry systems are in use. The aggregate length of the main sewers is about 150 miles, and the original cost of construction, commenced in 1851, amounted to about £161,000. The sewers take all storm water, which reaches them by way of trapped street gullies ; they are without any external openings or special ventilating outlets, and the manholes are all closed down. Double tidal-valves are fixed at their outlet, and in the low level sewers provision has been made for flushing from the Floating Harbour. The outlet valves are of cast-iron, oval or circular, and self-acting, hung on chains, and bedded on india-rubber.

The sewers are so designed and constructed with regard to capacity, fall, and position that they may ultimately be converged to one point, from which an outfall sewer may be continued to a suitable point lower down the river, or into the Bristol Channel. The sewage is discharged without treatment into the tidal Avon, and the rapid scour of the tide, which in this channel is of exceptional force, generally results in the removal of the sewage without offence, although, in remarkably dry summers when fresh water is deficient in the river, some nuisance may be complained of. The meteorological conditions of recent years have not contributed to the existence of nuisance, and there is complete lack of evidence as to any injurious effect. The City Engineer publishes an Annual Report of the work in his Department.

ANALYTICAL DATA (Chemical and Bacteriological) OF CITY WATER SUPPLY.

Number of Sample	1 21 January. Tap in Laboratory	2 29 February. Tap in Laboratory		3 30 April. Tap in Laboratory		4 11 June Tap in Laboratory		9 14 August. Tap in Laboratory		13 27 October Tap in Laboratory		14 12 November Barrow Gurney.		16 9 December Tap in Laboratory	
		Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.	Parts per 100,000.	Grains per gallon.
Date of Collection (1924)	Clear, bright, neutral to litmus No smell on heating solids.	...	.015	...	.011	.019	.013	.020	.014	.02	.014	.031	.022	.041	.029
Place of Collection	Tap in Laboratory	...	...	...	...	...	...	.0004	.0003	nil	...	traces	...	traces	...
Physical appearance	Clear, bright, neutral to litmus No smell on heating solids.	.001	.0007	.005	.0035	.005	.0035	.0055	.004	.004	.003	.0085	.006	.008	.0056
Remarks on solids14	.10	.08	.055	.10	.07	.08	.06	.11	.08	.07	.05	.064	.045
...	...	1.35	.95	1.3	0.9	1.3	0.9	1.3	0.9	1.2	0.85	1.1	.75	1.14	0.8
...	...	11.5°	12°	12°	12°	12°	12°	12°	12°	12°	11.8°	1.1	10.2°	1.14	10°
...	...	4.6°	4.5°	4.5°	4.5°	5°	5°	5°	5°	5.5°	5.5°	...	4.9°	...	5.5°
...	...	6.9°	7.5°	7.5°	7.5°	7°	7°	7°	7°	6.3°	6.3°	...	5.3°	...	4.5°
...	...	33.0	23.1	30.3	21.2	27.7	19.4	28.0	19.6	29.0	20.3	26.0	18.2	26.7	18.7
...	...	23.0	16.1	21.8	15.3	24.0	16.8	20.5	14.4	24.7	17.3	23.5	16.5	22.8	16.0
...	...	10.0	7.0	8.5	5.9	3.7	2.6	7.5	5.2	4.3	3.0	2.5	1.7	3.9	2.7
...	...	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	...	...	...	...
...	...	44	134	134	134	9	...	25	...	15	...	2	...	...	...
...	...	15	+ 1 liq uefier	+ 1 liq uefier	+ 1 liq uefier	3	...	+ 1 liq uefier	...	3	...	+ 1 liq uefier	...	...	...
...	...	—	—	+	+	+	+	—	—	—	—	—	—	—	—
...	...	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Oxygen Absorbed021	.015	.016	.011	.019	.013	.020	.014	.02	.014	.031	.022	.041	.029
Free Ammonia	nil	...	nil	...	nil	...	.0004	.0003	nil	...	traces	...	traces	...
Albuminoid Ammonia006	.004	.005	.0035	.005	.0035	.0055	.004	.004	.003	.0085	.006	.008	.0056
Nitrogen in Nitrates13	.09	.08	.055	.10	.07	.08	.06	.11	.08	.07	.05	.064	.045
Chlorine as Chlorides	1.2	.85	1.3	0.9	1.3	0.9	1.3	0.9	1.2	0.85	1.1	.75	1.14	0.8
Total Hardness	13°	13°	12°	12°	12°	12°	12°	12°	12°	11.8°	1.1	10.2°	1.14	10°
Permanent Hardness	5.5°	5.5°	4.5°	4.5°	5°	5°	5°	5°	5.5°	5.5°	...	4.9°	...	5.5°
Temporary Hardness	7.5°	6.9°	7.5°	7.5°	7°	7°	7°	7°	6.3°	6.3°	...	5.3°	...	4.5°
Total Solids	32.2	22.5	30.3	21.2	27.7	19.4	28.0	19.6	29.0	20.3	26.0	18.2	26.7	18.7
Mineral Matter	26.2	18.3	21.8	15.3	24.0	16.8	20.5	14.4	24.7	17.3	23.5	16.5	22.8	16.0
Loss on Ignition	6.0	4.2	8.5	5.9	3.7	2.6	7.5	5.2	4.3	3.0	2.5	1.7	3.9	2.7
Nitrites	nil	nil	nil	nil	nil	nil	nil	nil	nil	nil	...	...	...	...
Colonies per cc on Gelatine at 22°C	80	134	134	134	9	...	25	...	15	...	2	...	...	...
Colonies on Agar at 37°C	+ 5 liq uefiers	+ 1 liq uefier	+ 1 liq uefier	+ 1 liq uefier	3	...	+ 1 liq uefier	...	3	...	+ 1 liq uefier	...	...	...
MacConkey's Bile Salt broth (B. coli test) 25 cc water used	3	1	1	1	3	...	4	...	3	...	7	...	...	...
...	...	—	—	+	+	+	+	—	—	—	—	—	—	—	—
...	...	—	—	+	+	+	+	+	+	+	+	+	+	+	+

Closet Accommodation.

There are no privy middens, wet ashpits, tub and pail closets, or waste waterclosets. Four types of closets are in use in the City :

- 1.—Pedestal pan and trap with flushing cistern.
- 2.—Cottage pan and syphon trap with or without flushing cistern.
- 3.—Glazed lining with 6-inch outlet and syphon without flushing cistern.
- 4.—Old brick trunk.

It was estimated that in 1921 there were 36,000 closets in the City without flushing appliances. There are now only a few of the old brick trunk type, and when found these are ordered to be converted. About one-half of the unflushed closets are of the glazed lining type, and the other half the cottage pan and syphon trap. A number of the former are situated outside the larger houses, which have also a water closet having flushing cistern.

Systematic conversion of this type is proceeding when found inside houses, in houses which are occupied by more than one family, or when alterations are being made to the drains.

Cleansing, Ashing and Street Watering.

This work, formerly carried out by contract, was taken over by the Sanitary Committee in 1892, and has since been carried out by the City Engineer who reports to the Committee. No excremental matter finds its way to the tips, which receive only the contents of ashbins and household refuse.

Two Destructors have been provided—one at Eastville and one at St. Philip's—which deal with house refuse, and it is proposed to provide an additional Destructor in the Bedminster district of the City. It is estimated that nearly one-half of the household refuse of the City is burnt, the remainder being tipped on low-lying ground in various parts of the City.

Several complaints were received during the year regarding refuse tips. One tip on the outskirts of the City was infested with crickets. The tip was treated with a powerful insect killer, and afterwards completely covered with hessian canvas laid in widths of 6 ft. securely fixed and sewn together, and the whole covered with a 6 inch layer of soil. The tipping of household refuse on this tip has been discontinued for the time being.

Another tip caused a nuisance owing to the presence of a large number of flies. This tip was also treated, and the interior of immediately adjacent houses sprayed with an insect killer.

A recent visit was paid by the Engineer's staff accompanied by the Chief Sanitary Inspector, to Bradford, to study their improved methods of utilising tips, and the Engineer has reported to his Committee on the matter. From the health point of view the tips rather disturb the amenities of life than

directly injure health, but in the interests of decent living, open ashpits should be dealt with in such a way that they do not harbour flies or crickets, do not smother neighbourhoods with dust, and do not cause offensive effluvia. Alternatively, Destructors need to be provided.

SANITARY INSPECTION.

Report of the Chief Sanitary Inspector, 1925.

Complaints received and attended to	...	...	2,942
No. of visits and re-visits on account of Nuisances, etc.			32,109
„ Informal Notices	...	...	2,413
„ Formal Notices and Orders served	...		254
„ Prosecutions for non-compliance	...		1
„ Articles disinfected	...	...	76,622
„ Articles destroyed	...	...	1,082
„ Houses disinfected	...	...	2,945
„ Visits to houses for infectious disease	...		3,312
„ Tests to drains	...	...	957

Summary of Work effected.

No. of drains relaid	...	...	...	131
„ drains partially re-laid	...	...	...	441
„ sink troughs fixed	...	...	...	332
„ sinks, drains, etc. trapped	...	...	...	660
„ W.C.'s fitted with new pans and traps	...	...	...	433
„ „ repaired and cleansed	...	...	...	301
„ „ fitted with flushing appliances	...	...	...	311
„ Additional W.C. accommodation	...	...	...	8
„ Houses repaired	...	...	...	615
„ Roofs repaired	...	...	...	753
„ Yards, etc., paved, floors repaired	...	...	...	1,007
„ Rooms cleansed, papered, etc.	...	...	...	1,394
„ Passages, etc., cleansed, papered, etc.	...	...	...	344
„ Cesspools abolished	...	...	...	2
„ Offensive deposits removed	...	...	...	231
„ Manure pits or refuse bins provided	...	...	...	9
„ Pigs, etc, removed	...	...	...	4
„ Polluted wells closed	...	...	...	1
„ Houses supplied with Co's water	...	...	...	12
„ Overcrowding nuisances abated	...	...	...	28
„ Other nuisances abated	...	...	...	1,507
Total				8,524

J. A. R.

Smoke Abatement.

The nuisance from smoke is confined to a few chimneys, most of which are situated in or near the centre of the City. The District Sanitary Inspectors regularly take observations, and when undue emissions are noted the firms concerned are immediately advised, and if no improvement occurs, Statutory Notices are served.

Houses Let-in-Lodgings.

At the end of the year there were 299 registered houses let-in-lodgings or tenement houses in the City. 2086 visits were made to these houses by the Inspector during the year, and 131 notices served in respect of sanitary defects. 272 notices were served in accordance with the bye-laws for cleansing and limewashing. The present bye-laws with regard to houses let-in-lodgings are inadequate, on account of the restricted low rental, so that many large houses now let-in-lodgings do not come within the scope of the bye-laws. The question of amending the existing bye-laws is now under consideration.

Common Lodging Houses.

There are 31 common lodging houses in the City, including one belonging to the Corporation and six charitable institutions.

There is a total accommodation in the private houses (190 rooms) for 1,236 persons, consisting of accommodation for 1,104 single male persons, 100 single females, and 16 married couples. The Municipal Lodging House has accommodation for 120 males, all lodged in separate cubicles. The accommodation in the charitable institutions (31 rooms) is for 356 single men and 46 women. There are two houses in which both males and females are taken in, and in one of these the married couples and single women's sleeping rooms are in a house separated from the male side; in the other house only two married couples are accommodated.

In supervising these places, 1,129 visits were made. Four notices were served in respect of general disrepair, and 51 notices in respect of limewashing.

Tents, Vans, Sheds, etc.

A set of bye-laws framed from the model bye-laws of the Ministry of Health were adopted by the Council, and came into operation on July 21st, 1925.

Offensive Trades.

There are 47 offensive trades in the City, other than 210 fried fish shops. During the year, the trades of gut scraper and fat melter were declared to be offensive trades and added to the list, which now includes, in addition to the business of blood boiler, bone boiler, fellmonger, soap-boiler, tallow melter, and tripe boiler, that of blood drier, tanner, glue maker, fish frier, rag and bone dealer, animal charcoal manufacturer, fish curer, manufacturer of poultry meal, comprising fish refuse and other refuse of animal origin. Bye-laws governing these trades have been drafted, and will become operative when they have been approved by the Ministry of Health.

The Health Committee has decided to issue annual licences for the establishment of offensive trades.

Workshops.

The number of workshops on the register at the end of 1925 was 1,651. 2,539 visits were made, and 276 notices served in respect of limewashing and general sanitary defects. 57 notices were received from H. M. Inspector of Factories relating to sanitary defects in factories and workshops. These notices have been dealt with, and in most cases the necessary work has been executed.

Homework. List of Outworkers received during 1925.

Nature of Employment.	No. of Outworkers	
	February.	August.
Boot and Shoe making	28	42
Paper Bag making	2	2
Making of wearing apparel	320	410
	350	454

Upon the receipt of the lists of outworkers from the Town Clerk, the Workshop Inspector visits the premises as far as possible in conjunction with his work under the other provisions of the Factory and Workshop Act.

J. A. ROBINSON,

Chief Sanitary Inspector.

1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by Sanitary Inspectors.

Premises (1)	Number of		
	Inspections (2)	Written Notices (3)	Prosecu- tions (4)
Factories (Including Factory Laundries) ...	504	21	none
Workshops (Including Workshop Laundries) ...	1995	30	none
Workplaces (Other than Outworkers' premises) ...	40	—	—
<i>Total</i> ...	2539	51	none

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

Particulars (1)	Number of Defects			Number of Prosecu- tions (5)
	Found (2)	Remedied (3)	Referred to H. M. Inspector (4)	
<i>Nuisances under the Public Health Acts:*</i>				
Want of cleanliness	196	196	—	none
Want of ventilation... ..	21	21	—	
Overcrowding	1	1	—	
Want of drainage of floors ...	2	2	—	
Other nuisances	10	10	—	
Sanitary accommodation { insufficient	12	12	—	
{ unsuitable or				
{ defective	157	157	—	
{ not separate for sexes	—	—	—	
<i>Offences under the Factory and Workshop Acts :</i>				
Illegal occupation of underground bakehouse (s. 101)	—	—	—	
Other offences	—	—	9	
(Excluding offences relating to out- work and offences under the sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921).				
<i>Total</i>	399	399	9	none

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

D. S. DAVIES, M.D., *Medical Officer of Health.*

HOUSING.

Report of the Chief Housing Inspector, 1925.

Considerable progress has been made in Housing Work during the year in spite of the continued high cost of materials and labour.

Eugene Street Improvement Scheme.

A Public Enquiry was held early in the year in respect of the Eugene Street Improvement Scheme and good progress has been made in arriving at agreements with the owners and other parties interested in the premises comprised in the area.

Notice of the appointment of an Arbitrator to consider the outstanding claims has been given and it is hoped the cases will be dealt with early in the new year.

The erection of the second blocks of flats at Lawfords Gate has been completed and some 22 families have been transferred from Eugene Street area to the second block to allow for the demolition of the properties and clearance of the site for the building of the centre block of flats within this area.

Good progress has subsequently been made with this centre block, which will contain 12 flats.

I have great pleasure in recording that the tenants of these flats have taken the greatest interest in their dwellings, and almost without exception, I have been unable to find any fault with regard to the upkeep and general cleanliness of the flats. This is extremely gratifying in view of the fact that most of the tenants came from unfit and slum houses where it was most difficult to judge whether the conditions under which they were living were due to their own neglect and carelessness or to the state of the premises they occupied.

Provision of Houses for Temporary Accommodation.

Fishponds and Eastville.

Three houses have been erected on Fishponds Road under the supervision of your Inspectorial Staff, for the temporary accommodation of families who may be de housed during the progress of rebuilding and repairing their unfit houses.

The Housing Committee has acquired 13 houses, subject to demolition Orders, and the site of one house, in Berkeley Street, Eastville, and accepted a tender for reconditioning these houses and the erection of a house on the void site. Owing, however, to the failure of the contractor to carry out his contract, the Committee has had to proceed with the work by direct labour. Three of these houses are nearing completion and tenants will be transferred into them early in the next year. One house has also been acquired in Park Place, Fishponds, and tenders have been invited for its restoration. None of these, however, have been accepted because they were not considered reasonable.

Whitehall.

The three houses on Fishponds Road are now in the occupation of three families who have been transferred from Carlton

Park, Whitehall, where the work of repairs and restoration to nine houses is being carried out by direct labour, on account of the failure of the contractor whose tender was accepted by the Housing Committee.

The Committee has also entered into negotiation to acquire another house in Carlton Park, adjoining one already acquired, in order to facilitate the rebuilding on a reinforced concrete raft of the two annexes. The site of these houses consists of soft garden loam, and ordinary foundations have been insufficient to prevent settlement in the walls of the annexes.

Four of the houses in Carlton Park have almost been completed and tenants will be shortly entering into possession.

St. Philips.

Negotiations for the acquisition of the site of Nos. 42 to 52 Kingsland Road have been successfully carried through during the year and a contract has been placed for the restoration of these houses. The work is now well in hand. These six houses upon which demolition orders have been in operation for some time were given to the Council. The basements have been filled in and each house when reconditioned will contain two bedrooms, living room, bath scullery, food larder, W.C. and coal house.

St. Jude's.

A site in St. Jude's has been acquired by the Council and although tenders for the erection of two cottages thereon were invited, none were accepted since the Council considered that the tenders were unreasonably high.

Formal Notices, Section 3, Housing Act, 1925.

Owing to the default of the owners in obeying the Formal Notices served upon them under this section, it has been necessary for the Housing Committee to invite, and accept, tenders for the execution of repairs in respect of 23 houses. These repairs are now being effected,

In regard to five other houses the owners have declared their intention of closing the premises, and these declarations have been accepted by the Committee.

Police Court Proceedings.

During the year the owners and occupiers of the under-mentioned properties were prosecuted for letting and occupying houses upon which Closing Orders were in occupation.

No. 3, Arnolds Court. Case dismissed on occupier undertaking to vacate premises.

No. 19, Nelson Place. Case dismissed upon the owner undertaking to carry out required repairs.

No. 62, Union Road. Owner fined £2; case against occupier dismissed.

An application was also made for possession of No. 44, Kingsland Road, and the Justices granted the application.

Housing Accommodation.

The Housing Committee has given very careful consideration to applications for houses received from the tenants of unfit houses and a considerable number of these tenants have been allocated houses on the Housing Estates.

Housing Repairs.

It is particularly pleasing to state that I have received considerable help from many owners in the restoration of unfit houses, although much hardship is involved when a sum probably equal to two or three times the original cost of a house has to be spent in reconditioning the properties, whilst the owners have been unable to increase the standard rent owing to the vague position as to what constitutes an improvement or repair. The cost to the owner frequently means the absorption of the rent for many years.

There has been no difficulty in getting unfit houses, which have become vacant, made fit, because of the ready sale this type of house commands after the requirements of the Committee have been complied with and the houses made fit for human habitation.

I think the demand for houses from people who are able to pay rents required on the Housing Estates is being overtaken. The difficulty at the moment is to supply accommodation for those people who are receiving low wages or are in casual employment or are unemployed. They cannot possibly afford to pay more than 7/6 to 10/- a week, inclusive, and if something could be done to provide houses at this rental it would meet what is at the present time a very serious and urgent demand. I do not see how private enterprise can supply this demand.

There seems no help except that received from the Government and Local Authorities who will have to face building houses to let at an uneconomic rent.

Housing of the Working Classes will have to be regarded in the same light as Public Health, Insurance, Unemployment and Education, *viz.*, a matter entirely for the State and Local Authority.

During the year 971 houses and 44 flats have been erected by the Local Authority under the Housing Acts and 1004 houses have been provided by private enterprise.

It is interesting to note that private people and bodies are now taking a practical interest in the housing question. The Bristol Churches Tenement Association has acquired five houses in Orange Street. These houses comprise basement, ground, first, second and attic floors. It is proposed to do away with the basement and attics and convert the five houses into six very satisfactory flats.

Another private person has acquired 43 houses and plans are being prepared for the erection of 20 subsidy cottages in place of 43 unfit dwellings situated in one of our worst slum districts. When this scheme is carried out it will effect one of the most desirable improvements ever carried out in Bristol.

Housing Act, 1925.

This Act came into operation during the year. It is an Act which consolidates the various Housing Acts from 1890 to 1923, and will materially assist Local Authorities, as it was most difficult in taking action dealing with unfit houses to have to refer to the various Acts, instead of one consolidated Act.

A. W. GRIFFITHS,

Chief Housing Inspector.

HOUSING ACT, 1925.

Synopsis.

Total No. of houses inspected, 1910 to 1925	...	22,632
No. found defective	... ..	15,667
No. made fit	... ..	7,260

Of the number found defective—1352 houses are within Scheduled Areas, and only work of immediate and temporary nature is being carried out.

Total No. of houses Represented as Unfit , 1910 to 1925	3,357
No. of such houses repaired, 1910 to 1925	... 1084
No. of such houses demolished, 1910 to 1925 (including 211 voluntarily after Closing Orders)	552
No. of such houses outstanding	... .. 1,721
	————— 3,357

Total No. of Closing Orders made, 1910 to 1925 (including 7 declarations to close by owners)...	1,315
Total No. of Closing Orders determined	... 195
Total No. of houses demolished voluntarily	... 211
Total No. of Demolition Orders made	... 622
	————— 1,028

Total No. of Closing Orders outstanding at end of 1925 287
--	------------

Total No. of Demolition Orders made, 1910 to 1925	622
Total No. of Demolition Orders determined	... 63
Total No. of Demolition Orders carried into effect	... .. 341
	————— 404

Total No. of Demolition Orders outstanding at end of 1925 218
---	------------

Work done during the Year 1925.

No. of houses visited by the Housing of the Working Classes Sub-Committee	420
Total No. of houses repaired—Represented houses	110
Informal Notices	32
	— 142
No. of houses represented as Unfit	323
No. of Formal Notices served, Sec. 3, Housing Act, 1925	41
No. of Formal Notices complied with—11 of 1925	
13 previously served	24
No. of Specifications and Informal Notices served	121
No. of houses closed under Order	99
No. of Closing Orders determined	38
No. of Notices to Quit served	80
No. of Notices to Quit obeyed	27
No. of Demolition Orders made	47
No. of Demolition Orders determined	14
No. of houses demolished under Order	52
No. of houses demolished voluntarily after Closing Orders	24
No. of Houses inspected during 1925 ...	325

A. W. G.

HOUSING STATISTICS for the Year 1925.

- (a) Number of New Houses erected during the year (including numbers given separately under (b)) 1975
- (b) With State assistance under the Housing Act :
- (i) By the Local Authority 971
- (ii) By other bodies of persons 593

Unfit Dwelling Houses.

INSPECTION. (Total No. of dwelling houses inspected for housing defects (under Housing Act) ...	323
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910, or Housing Consolidated Regulations, 1925)	323
(3) No. of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	323
(4) No. of dwelling-houses (exclusive of those referred to under sub-head) found not to be in all respects reasonably fit for human habitation	nil.

Remedy of defects without service of Formal Notices.

No. of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	36
---	----

Action under Statutory Powers.

PROCEEDINGS UNDER SECTION 3 OF THE HOUSING ACT, 1925.

1. No. of dwelling-houses in respect of which notices were served requiring repairs	...	...	41
2. No. of dwelling-houses rendered fit after service of formal notices :—			
(a) By Owners, 10 of 1925, 12 served previously			22
(b) By Local Authority	...1 of 1925, 1 served previously	...	2
3. No. of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close : 1 of 1924, 4 of 1925	...	...	5

PROCEEDINGS UNDER SECTIONS 11, 14, & 15 OF THE HOUSING ACT, 1925.

1. No. of representations made with a view to the making of Closing Orders	...	...	323
2. No. of dwelling-houses in respect of which Closing Orders were made...	...	...	99
3. No. of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	...	...	38
4. No. of dwelling-houses in respect of which Demolition Orders were made	...	...	47
No. of Demolition Orders determined, the dwelling-houses having been rendered fit	...	...	14
5. No. of dwelling-houses demolished in pursuance of Demolition Order	...	...	52

NOTE.—The total No. of dwelling-houses rendered fit for human habitation :

(a) Under Closing Orders	...	38
(b) Under Demolition Orders	...	14
		— 52

A. W. GRIFFITHS,
Chief Housing Inspector.

HOUSING ACT, 1925.

Synopsis of Action taken in regard to Houses represented as being Unfit.

YEAR	Re- ported as Unfit	Unfit Houses made Fit	FORMAL NOTICES		CLOSING ORDERS		No. of families dehoused	DEMOLITION ORDERS		DEMOLISHED		
			Served	Complied with	Made	Determin'd		Made	Determin'd	Under Order	After C.O.	Volun- tarily
1919 to 1923	1539	347	117	74	697	71	61	407	44	156	121	187
1924	282	72	73	8	80	9	27	42	5	29	4	7
1925	323	110	41	24	99	38	27	47	14	52	24	6
Totals	2144	529	231	106	876	118	115	496	63	237	149	200

Number of houses closed and demolished for extension of Business Premises, etc., and Street Improvements during 1925 ... 26

Total number of houses (all classes) erected during 1925—(a) As part of Municipal Housing Scheme ... 971

(b) By Private Enterprise ... 1004

Number of dwelling houses inhabited at end of 1925, is estimated to be ... 77209

Number of void houses ... 416

A. W. G.

SUMMARY OF PROCEEDINGS under Section 3 of the Housing Act, 1925.

Year	No. of houses.	No. of HOUSES RENDERED FIT		No. of houses where closing Orders have become operative.	No. of Notices outstanding.	Summary proceedings for recovery of expenses incurred. No. of houses.
		By Owners.	By Corporation in default of Owners.			
1919 to 1923	117	65	9	—	27	—
1924	73	2 of 1922 5 of 1923	1 of 1924	1 of 1923 1 of 1924	74	8 of 1922
1925	41	1 of 1922 2 of 1923 9 of 1924 10 of 1925	1 of 1924 1 of 1925	1 of 1924 4 of 1925	82 (a)	—
<i>Totals</i>	231	95	12	7	82	8

(a) 14 Notices cancelled and Closing Orders made.
21 Notices cancelled.

—
35
—

A. W. G.

SYNOPSIS OF HOUSES satisfactorily repaired under NOTICES AND ORDERS.

Nature of Work executed.	Informal Notices and Specifications.				Formal Notices Sec. 3, Housing Act				Closing Orders				Demolition Orders			
	1920-2	1923	1924	1925	1920-2	1923	1924	1925	1920-2	1923	1924	1925	1920-2	1923	1924	1925
Structural Alterations, new additions and general repairs ...	40	25	28	10	1	19	2	3	3	3	8	6	15	3	3	9
Rebuilding and general repairs	102	21	21	20	5	24	2	11	25	7	1	26	11	15	2	3
General Repairs ...	268	17	29	36	20	5	4	10	9	5	—	6	—	—	—	2
<i>Totals</i> ...	410	63	78	66	26	48	8	24	37	15	9	38	26	18	5	14
	617				106				99				63			

ANNUAL TOTALS.	1920	...	93
	1921	...	193
	1922	...	213
	1923	...	144
	1924	...	100
	1925	...	142 ... 885

3 new houses erected in Fishponds Road during 1925.

A. W. G.

INSPECTION AND SUPERVISION OF FOOD.

(a) Milk and Milk Supplies.

Care for the production of clean milk is essential, but it must not be supposed that a Tubercle-free milk supply will blot out Tuberculosis, as milk is only one of the factors involved in the spread of Tuberculosis, and not the most important.

During the year, 141 samples of milk have been taken, an increase of 34 over the preceeding year.

For Tuberculosis examination	...	...	50
For Tuberculosis examination (repeats)			2
Certified Milks	...	...	28
Grade "A" (Tuberculin tested)	...	...	7
Grade "A"	...	...	16
Pasteurised	...	...	17
Special samples	...	...	21

Milk examined for Tuberculosis.

Fifty samples were taken, 2 from City producers, 20 from Gloucestershire and 28 from Somerset producers. These were submitted to the University of Bristol; one positive result was obtained from a Somerset sample. This producer's farm was visited with the Veterinary Surgeon, who reported upon the fifteen cows examined and repeat samples were taken from two suspicious cows. These samples did not give any positive result.

Since taking the original sample, this producer has discontinued sending milk into this City.

Thirteen of the fifty supplies taken for T.B. examination gave either dirt, pus, or organisms, in excess, and these results were forwarded to the Medical Officer of Health for the County in which the milk was produced, for his information.

Certified Milks.

Twenty-eight samples received from Dorchester, Wincanton and Melksham, were taken under instructions from the Ministry of Health, and submitted to the City Analyst. The average bacteria count for the year in one producer's milk was only 800 bacteria per c.c., but in another, the average count was 40,000 per c.c. the counts in this case varying from 248,000 to 110 per c.c. To comply with the conditions of "The Milk (Special Designations) Order, 1923, the count must not exceed 30,000 per c.c.

Grade "A" (Tuberculin Tested).

Three of the seven samples taken during the months of June and July gave excessive bacteria counts, which were possibly due to the hot weather, and bad methods of storage. Better storage accommodation was provided, and the producer acquainted with the excessive high counts of his milk, following which further samples gave results well within the limit.

Grade " A " Milk.

Sixteen samples taken during the year gave an average bacteria count of 13,460 per c.c. being well within the requirements of the Order (of not more than 200,000 bacteria per c.c.)

Pasteurised Milk.

Four of the seventeen samples taken gave bacteria counts in excess of the limit allowed by the Order, *viz.*, 100,000 per c.c. In one sample the count was 1,350,000 per c.c., this sample brought the average for the year to 120,600 per c.c.

Of twenty-one special samples submitted to the City Analyst, eight were taken upon instructions from the Maternity and Child Welfare Committee from purveyors of milk who had been debarred from receiving orders for milk grants from that Committee on account of previous convictions against them for the chemical standard of milk. Of the eight samples taken, one only was satisfactory.

Samples of Milk taken for Grade " A " Licences.

The three samples obtained were well up to the requirements of the Order, two being placed in the first category, and the other sample in category 2.

Milk alleged to be of Poor Quality.

Six samples of milk were taken on complaint of taint or poor quality. All the samples complied with the requirements as regards the chemical standard of milk, and five were placed in the City Analyst's 3rd category. One sample (after repeated sampling and new milk utensils being provided by the purveyor) was placed in the 2nd category.

Milk produced at Chapel Pill Farm, Ham Green.

At the conclusion of the early morning and evening's milk, four samples were obtained and submitted to the City Analyst.

MORNING'S MILK.

Sample No. 1—

Fat	...	...	3.4 per cent.	B. Coli present in 1 c.c.
N.F. Solids	...	9.1	" "	
Total Solids	...	12.5	" "	Bacteria 57,000 per c.c.

Sample No. 3—

Fat	...	...	3.3 " "	B. Coli absent from 1 c.c.
N.F. Solids	...	8.9	" "	
Total Solids	...	12.2	" "	Bacteria 23,500 per c.c.

EVENING'S MILK.

Sample No. 2—

Fat	...	...	4.05 per cent.	B. Coli absent from 1 c.c.
N.F. Solids	...	8.5	" "	
Total Solids	...	12.55	" "	Bacteria 8,000 per c.c.

Sample No. 4—

Fat	...	...	4.05 per cent.	B. Coli absent from 1 c.c.
N.F. Solids	...	8.6	" "	
Total Solids	...	12.65	" "	Bacteria 6,500 per c.c.

The morning milk was placed in category 2, the evening milk in category 1.

The City Analyst in his scheme for classifying milks in categories, brings these samples near to those examined under the Grading System as required by the Ministry of Health, so that

Category 1—should satisfy the tests as applied for “Certified Milk.”

Category 2—To comply with Grade “A” requirements.

Category 3—Sample which falls below category 2.

Licences for Graded Milks.

The following licences for the production and sale of Graded Milks in this City for the year 1925 have been issued by the Town Clerk :—

	No. of Licences
For the sale of Certified Milk... ..	4
Bottling and sale of “Grade “A” (Tuberculin tested)”	3
To sell “Grade “A” (Tuberculin tested)” ...	3
To produce Grade “A” Milk and bottle by the producer	2
To produce Grade “A” Milk	1
Supplementary licences to sell Grade “A” Milk from premises outside the City... ..	2
To produce Pasteurised Milk	4
To sell Pasteurised Milk	3
<i>Total</i>	22

Pasteurising Plants.

The Pasteurising Plant used by the four firms in this City, who hold licences for the production of Pasteurised Milk, are of the following size and make :—

Firm.	Positive Holder	Capacity per hour Galls.
A	Enock's 8 drum	600
B	Silkeborg	350
C	Tarbet	350
D	Tarbet	125

REPORT BY THE CHIEF SANITARY INSPECTOR.

(b) Meat Inspection.

The City is divided into three districts, to which qualified Meat Inspectors are appointed. District Sanitary Inspectors who possess the Meat and Food Inspector's Certificate assist as occasion demands. The Meat Inspectors are responsible for the supervision of all meat slaughtered in private slaughter-houses in their districts, and that offered for sale in butchers' shops. They attend the meat markets on Friday evenings, Saturday afternoons and evenings, and also make special visits of inspection to butchers' shops during week-ends, in addition to their routine inspections. 14,220 visits were made during the year, and 103 sanitary defects in connection with slaughter-houses were remedied. The amount of meat found diseased, unsound, or unfit for human food during the year was 30 tons, 5 cwts. This meat was destroyed under supervision, at a local manure works. 1,281 packages of fish, 23 of fruit, and 30 of vegetables, 327 rabbits, 24 turkeys, 8 fowls, and 1,086 eggs were also destroyed. Bye-laws for slaughter-houses were drafted and received the approval of the Ministry of Health on 24th July, 1925. The Bye-laws include the use of a Mechanical Killer for larger animals. The occupiers of slaughter-houses adopted this method of stunning and the instrument is now generally in use.

Slaughter-houses in Bristol.

	In 1920	In Jan. 1925	In Dec. 1925
Registered	52	49	49
Licensed	30	33	32
Knackers' yards	2	3	3
Foreign animal slaughter-houses belonging to the Bristol Docks Committee	2	2	2
<i>Total</i> ...	86	87	86

Public Health (Meat) Regulations, 1924.

The carrying out of these regulations has been generally observed by the occupiers of private slaughter-houses, and several important improvements have been effected in the conduct of the premises, which were formerly used as stores for implements other than those required for slaughtering, including cooking apparatus, etc. These have now been entirely cleared. Notification of slaughtering has been made regularly, but difficulty has arisen on account of Sunday slaughtering. There are no street stalls where meat is sold, but a number of butchers purvey meat from motor vans, which comply with the regulations. There is no public abattoir in the City at present, though serious consideration of the provision of a slaughtering establishment is proceeding.

Bakehouses.

There were 243 bakehouses in the City at the end of the year. The District Sanitary Inspectors regularly visit bakehouses in order to see that they are kept clean, and that limewashing is carried out. 668 inspections were made during the year, and 129 notices served in respect of overdue limewashing and general sanitary defects.

Premises where Foods are Manufactured, Prepared, Stored, or Exposed for Sale.

Periodical visits to these premises are made by the District Sanitary Inspectors, and satisfactory improvements have been effected in several instances. A number of water-closets opening into restaurant kitchens have been removed, and in places where this has not been possible, an intervening ventilated space has been provided.

J. A. ROBINSON,
Chief Sanitary Inspector.

FOOD POISONING.

Arsenic on Apples.

THE CITY ANALYST reports :—

Arsenic was detected on the outside of apples (the poison being adherent to the peel) in November, 1925.

Examination of the pulp and core failed to yield any trace of arsenic, so it was concluded that the whole of the arsenic was present on the peel, and in future analyses only this part of the apple was examined.

The examination of peel made at the above mentioned time and on subsequent occasions yielded arsenic in variable amounts, from traces up to as much as .00034 per cent. or twice the legal limit of arsenic expressed as Arsenious Oxide, *viz.*, .00014 per cent; in some cases the skin was also examined for lead and an amount of *Pb* equivalent to .00055 per cent. was found.

If Lead Arseniate is the compound used for spraying apples, the presence of the two poisons is accounted for. Assuming therefore that the poison is present in the form of Lead Arseniate, is it justifiable to allow a larger dose of this less soluble arsenic compound? It is hardly possible to discuss this as we do not know the therapeutic or the dangerous dose of this substance; we do however know that the therapeutic dose of As_2O_3 is .004 grains and the dangerous dose is .13 grains; clearly therefore such an amount as .00014 per cent As_2O_3 must be negligible if considered from this point of view; but I do not think it should be so regarded, as the limit of arsenical contamination was fixed in 1903 following the enquiry into the presence of arsenic in beer.

Now in the epidemic resulting from the consumption of arsenical beer, as small a quantity as .000028 per cent As_2O_3 in beer *taken regularly* by the toppers, produced symptoms of chronic neuritis; doubtless many persons consumed regularly much more than this amount, and we are here dealing with arsenic in a soluble form though the equivalent to As_2O_3 comes to such a small amount.

In fixing the standard, the Ministry were no doubt chiefly guided by the effects of arsenical beer and thus a standard has grown up which applies to all foods. It is an offence under the Food and Drugs Acts if a food contains an amount of a poison substance (that substance being foreign to the food) which is in excess of any limit fixed by the Ministry of Health; a person is prejudiced by the presence of a poisonous substance even though the amount is well within the therapeutic dose.

PUBLIC HEALTH (MILK AND CREAM)
REGULATIONS, 1912 and 1917.

Report for the Year ending December, 1925.

1. Milk ; and Cream not sold as Preserved Cream.

(a) *No. of samples examined for the presence of a preservative.* (b) *No. in which a preservative was reported to be present, and percentage of preservative found in each sample.*

Milk	694	nil
Skim Milk	14	nil
Condensed Milk	8	nil
Cream	13	8

Action taken under the regulations in regard to it.

Samples undivided.

Cream .07%	Boric Acid.	Taken for experimental purposes.
„ .05%	„ „	„ „ „
„ .10%	„ „	„ „ „
„ .12%	„ „	„ „ „

Samples divided.

Cream .07%	Boric Acid.	Defendant fined 5/-.
„ .075%	„ „	Cautioned by order of Committee.
„ .15%	„ „	Defendant fined £1.
„ .15%	„ „	Defendant fined £1.

2. Cream sold as preserved Cream ... 9

(a)

(1) Correct statement made	... 9
(2) Statement incorrect	... -

Total ... 9

(3) Percentage of preservative found :

.07, .12, .16, .09, .26, .13, .07, trace, .14

Percentage stated on statutory label : not exceeding .4

(b) Determination made of milk fat in cream sold as Preserved Cream :

(1) Above 35%	... 9
(2) Below 35%	... -

(c) Nil.

(d) Nil.

3. Thickening substances, nil.

EDWARD RUSSELL, B.Sc., F.I.C.,
Public Analyst and Bacteriologist.

TUBERCULOSIS.

At the end of the war the Council had provided 50 beds at Winsley for early cases of pulmonary phthisis and 52 beds at Ham Green ; also Hospital provision for late cases, 20 beds at Ham Green and 21 beds at Clift House. After the war the Committee again took up the question of non-pulmonary tuberculosis and surgical tuberculosis, delayed by the war. At Novers Hill, 36 cases of early tuberculosis conditions in children were admitted until November, 1920, when they were transferred to Snowden House, where 18 children were temporarily accommodated until October, 1921, on which date the Institution was closed and the patients transferred to Frenchay Park Sanatorium.

Clift House Hospital, accommodating 21 advanced cases, was closed in September, 1921, and the patients transferred to Ham Green Sanatorium.

During the years 1921 to 1925 the accommodation at Ham Green Sanatorium for advanced cases has been depleted on four occasions, Blocks being given over to the nursing of Diphtheria or Scarlet Fever, as shown by the following :—

- Block P. (26 beds, advanced females) used for Diphtheria from 29th October, 1921, to 25th May, 1922.
- „ C. (26 beds, advanced males) used for Diphtheria from 2nd January, 1922 to 16th May, 1922.
- „ P. (26 beds, advanced females) used for Scarlet Fever, from 29th November, 1922 to 23rd August, 1923.
- „ P. (26 beds, advanced females) used for Diphtheria from 27th October, 1924 to 19th June, 1925.

During the year 1923 the Committee completed arrangements with the United Services Fund for the admission to Heatherwood Hospital, Ascot, of children of ex-Soldiers and Airmen, up to 12 years of age, suffering from Surgical Tuberculosis, the first case being admitted on 1st May. The maintenance charge is 25/- per week.

In April, 1923, Mr. Hubert Chitty, F.R.C.S., was appointed as Consulting Surgeon (part time) under the City Council's Tuberculosis Scheme.

The Council has approved of an arrangement for the provision of 60 beds for surgical tuberculosis in children, at Lord Mayor Treloar Cripples' Home at Alton and Hayling Island, and for 100 beds at Frenchay ; both these schemes have been delayed by the Ministry on the plea of economy. Six beds have been provided at Cossham Hospital for special adult surgical cases needing operative interference, and children are admitted for surgical treatment to the Orthopaedic Hospital.

There are now 194 adult beds for consumption, in addition to Frenchay for children, and the Committee feel assured that a very large amount of beneficial work will be secured as soon as full facilities are available for dealing with the early manifestations of Tuberculosis in childhood, upon which so much rests in the preventative treatment of this endemic disease.

	No. of Beds.	ADMITTED.			DISCHARGED.			DIED.		TRANSFERRED.	
		M.	F.	T.	M.	F.	T.	M.	F.	M.	T.
EARLY CASES. Winsley Sanatorium, nr. Bath, (Beds retained by payment to Winsley Board of Management) ...	58	89	58	147	87	59	146	3	—	—	—
Ham Green Sanatorium, Pill, near Bristol (On adjacent site to Isolation Hospital) ...	52	84	126	210	145	140	285	40	19	1	3
ADVANCED CASES. Ham Green Tuberculosis Hospital (On adjacent site at Ham Green) ...	72	87	68	155	—	—	—	—	—	—	—
Ham Green Red Cross Hospital (for Soldiers & Sailors) ...	12	—	—	—	—	—	—	—	—	—	—
PRE-TUBERCULAR CHILDREN. *Frenchay Park Sanatorium, Frenchay, nr. Bristol...	35	55	44	99	48	38	86	2	—	7	5
SURGICAL CASES. Cossham Hospital, Kingswood, Bristol (6 beds retained by payment of maintenance charges) ...	6	10	12	22	11	8	19	2	1	—	1
Lord Mayor Treloar Cripples' Hospital, Alton, Hants (patients sent in by arrangement, on payment of maintenance charges) ...	—	2	2	4	4	—	4	—	—	—	—
Orthopaedic Hospital, Redland, Bristol (patients sent in by arrangement on payment of maintenance charges) ...	—	5	1	6	4	5	9	—	—	1	1
Heatherwood Hospital, Ascot, Berks (patients sent in by arrangement on payment of maintenance charges) ...	—	1	1	2	2	3	5	—	—	—	—

* This is the number of cases at present nursed in Frenchay Sanatorium, but it is hoped to bring the accommodation up to 100 eventually.

During the year the following cases were also admitted to and discharged from various outside Institutions :

	ADMITTED			DISCHARGED			DIED			TRANSFERRED		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
PULMONARY. British Legion Village, Aylesford ...	8	—	8	9	—	9	—	—	—	—	—	—
St. Michael's Home, Axbridge ...	—	1	1	—	—	—	—	—	—	—	—	—
Norton House, Midomer Norton ...	—	—	—	1	—	1	—	—	—	—	—	—
SURGICAL. Wingfield Orthopaedic Hospital Headington ...	—	1	1	—	1	1	—	—	—	—	—	—
King George's Sanatorium, Bramshot ...	1	—	1	—	—	—	—	—	—	—	—	—
Coombe Park Orthopaedic Hospital, Bath ...	—	—	—	1	—	1	—	—	—	—	—	—
Totals ...	9	2	11	11	1	12	—	—	—	—	—	—

HAM GREEN SANATORIUM—
Dr. B. A. I. Peters,
Resident Medical Officer
Dr. R. H. Tasker,
Assistant Resident M.O.
Dr. F. J. Hector,
Assistant Resident M.O.

FRENCHAY PARK SANATORIUM—
Dr. C. J. Campbell Faill (Visiting Medical Attendant), Matron and 6 Nursing Staff.

New Cases and Mortality during 1925.

Particulars of New Cases of Tuberculosis and of Deaths from the disease in the area during 1925.

Age periods	New Cases				Deaths.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0	3	2	4	3	1	2	3	2
1	9	6	21	12	3	2	10	4
5	10	9	20	15	4	1	9	6
10	31	21	9	11	4	4	2	6
15	44	48	9	13	15	22	5	9
20	37	66	4	10	18	36	1	2
25	65	107	9	11	33	34	8	6
35	82	56	2	11	33	32	1	6
45	57	32	2	4	53	15	2	2
55	22	16	2	1	24	13	3	3
65& upwards	14	7	1	—	11	5	2	1
<i>Totals</i> ...	374	370	83	91	199	166	46	47
Ratio of Non-notified deaths ...					1-13	1-16	1-4	1-4

The Regulations regarding notification are fairly generally observed. In cases where notification has not been made it is usually found that the practitioner has been under the impression that the case has already been notified by a previous medical attendant.

Report by the Tuberculosis Officer, 1925.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

No notices have up to the present been served under Article 5 of these Regulations.

Public Health Act, 1925, Section 62.

No action yet been taken under this Section.

Bristol Municipal Tuberculosis Dispensaries.

19 Portland Square.

4 Redcliffe Parade West.

Officers : Tuberculosis Officer and 1 Assistant Tuberculosis Officer, 2 Clinic Nurses. (The home visiting of cases is done by Health Visiting Staff), 1 Laboratory Attendant and X-Ray Operator, 1 part time Dispenser, and 6 Clerks.

1925.

Total patients treated, 3,803.

Total attendances, 16,242.

Total number of re-examinations, 2,503.

New Cases Examined—

Pulmonary Tuberculosis	558	(324 Insured, 234 Non-insured)		
Stigmata and other forms of Tuberculosis	211	(20 „ 191 „)		
Observation at Dispensary	... 141	(70 „ 71 „)		
Non-Tuberculous	... 437	(94 „ 343 „)		
Total	...1,347	(508 „ 839 „)		
Total attendances of School Children	...	...	5,109	
X-Ray examinations	...	...	...	546
Sputum examinations	...	...	...	1,136
Total Injections...	...	...	...	1,469
Artificial Pneumothorax	...	...	...	35
No. of visits (domiciliary) by Tuberculosis Officers	...	...	...	680
No. of visits to Patients by Tuberculosis Nurses and Health Visitors	...	...	...	9,962
No. of cases seen by Consulting Surgeon	...	...	...	109
No. of attendances of Cases seen by Consulting Surgeon	...	...	...	199

The nature and extent of co-operation with general and special Hospitals, School Clinics and other Institutions.

The co-operation of the Tuberculosis Department with all other medical agencies in the City is very close, although quite informal. The very informality adds to the efficiency, as it allows for much greater elasticity than would be possible if there were formal agreements. The Tuberculosis Officers are received cordially when visiting Hospitals to see patients recommended Sanatorium treatment, and are given every facility. The Health Department endeavours to relieve the General Hospitals of the care of cases of pulmonary tuberculosis at the earliest moment possible without injustice to other patients recommended by their private doctors. The final year students at the University attend four lectures or demonstrations by the Tuberculosis Officer as part of their Public Health Course, and one of the Senior Physicians sends his Clinical Medicine Class to Frenchay Park Sanatorium for a demonstration of tuberculosis in children.

The co-operation with the Education Authorities is also very close. A report is sent twice weekly to the School Medical Officer of the condition of every child of school age examined at the Dispensaries, and, once weekly, to each Dispensary is sent a batch of 10—15 children diagnosed as definitely tuberculous or suspected of being tuberculous by the School Medical

Officers. In addition, the School Authorities give preferential treatment to the Dispensary recommendations for admission to Open Air Schools, and this Department admits to Frenchay Park Sanatorium at once all children who have not done well at the Open Air Schools, or have broken down in spite of attending these.

Any special arrangements made to secure the co-operation of medical practitioners, and the working of the arrangements set out in Memorandum No. 286 in regard to the co-ordination of the work of Tuberculosis Officers and Insurance Practitioners.

The relations with general practitioners are cordial. When the first Dispensary was opened, the view was taken that the services of the Tuberculosis Officer and all the resources of his Department were at the service of any local practitioner who wished to avail himself of them, and this policy has been consistently adhered to with most gratifying results. Since the Dispensary opened, there has been no case of friction with any general practitioner in the City. This is the result of good-will on both sides, and the suppression of officialism as much as possible consistent with efficiency.

The frequent transfers of patients between Bristol and the Counties of Somerset and Gloucester take place without a hitch, and the Tuberculosis Departments of the three Authorities work together cordially and efficiently.

The arrangements for following up patients in cases in which the diagnosis is doubtful.

When a new patient is sent to the Dispensary, he is examined. If the diagnosis is in doubt, several specimens of sputum are examined with Antiformin, and an X-ray photograph of the chest taken. If the case is still doubtful, the patient is instructed how to use a thermometer and after taking the temperature night and morning for a week, is re-examined. If the diagnosis is still doubtful, the patient is kept under observation by the Tuberculosis Officers for a few weeks or is sent back to his own doctor for observation. A full report of what has been found is also sent to the private doctor.

Subcutaneous injection of tuberculin is not used, as it is considered dangerous in patients not under continuous supervision as in Hospital, but quantitative von Pirquet reactions are frequently found useful in children. It is to be regretted that it has not yet been found possible to provide observation beds under the control of the Tuberculosis Officer as recommended by the Ministry.

The arrangements for securing the examination and systematic supervision of "home contacts."

Every notified case of Tuberculosis is visited by a Health Visitor, and contacts are urged to present themselves at the Dispensary for examination. Contacts who are Insured persons are advised to request a special examination by their

Panel Doctor. The routine examination of school-children by the School Medical Officers naturally includes many contacts of notified cases.

Information as to the special methods of diagnosis and treatment in use, and the number of persons to whom these special methods have been applied.

No special methods of diagnosis are used. The ordinary and obvious routine of repeated physical examination; repeated examination of sputum with Antiformin; exercise tolerance tests, and X-ray examination is carried out. In the case of children, either quantitative von Pirquet tests or tuberculin inunction may be resorted to.

The results of local experience as to the relative value of each form of treatment.

With regard to treatment, there can be no possible doubt that in the manifest case of pulmonary tuberculosis, ordinary Sanatorium or hygienic-dietetic treatment is the bed rock. In a considerable number Sanatorium definitely arrests the disease; in many more it certainly retards its progress, and in all it is a most valuable training in prophylaxis. In all, that is, except the definitely careless and unwilling. It is, of course, foolish to believe that the usual four or six months Sanatorium treatment will completely cure any but the very earliest and most favourable cases, but a spell of Sanatorium usually has put the patients into better condition to withstand the strains of life and work, and has taught him or her how to keep well.

In addition, a large number of Sanatorium patients on their return home have been treated with Tuberculin on the lines suggested by Sir Robert Philip of Edinburgh, and Professor Sahli of Berne, *viz.*, small slowly increasing doses continued over long periods and avoiding reaction—with excellent results. This treatment was unfortunately discontinued during the War, but a considerable of old patients so treated prior to August, 1914, have reported at the Dispensary in the last few years having kept well and at work for periods of from five to twelve years.

A considerable number of cases of T.B. keratitis, and T.B. nephritis and cystitis, have also been treated with Tuberculin with most gratifying results, but a certain proportion of cases sent to the Dispensary either as ocular or genito-urinary tubercle, have been found to have active pulmonary disease with severe general intoxication. In these cases, Tuberculin is obviously contra-indicated, and general Sanatorium treatment is always tried, though usually with poor result.

In young children with tuberculous peritonitis or tuberculous enlarged glands, remarkably good results have been obtained by Tuberculin inunction. The general impression gained after some years trial is that the younger the patient, greater benefit will result from inunction than from sub-cutaneous injections of Tuberculin.

During the year 1925, 97 patients were treated at the Dispensaries with Tuberculin with the following results :—

After Sanatorium treatment—

Well and at work	...	...	...	33
Not at work (unchanged)	...	...	...	1
Improved	...	...	...	2
Surgical : well and at work	...	...	...	2

No Sanatorium treatment—

Well and at work	...	...	...	9
Improved	...	...	...	9
Not at work	...	...	...	1
Genito-urinary (improved)	...	...	...	4
Eye do.	...	...	...	2
Surgical : well and at work	...	...	...	1
Abdomen : improved	...	...	...	1
Unchanged	...	...	...	11
Discontinued	...	...	...	18
Refused	...	...	...	3

Total ... 97

The treatment of pulmonary tuberculosis by the induction of artificial pneumothorax in Dispensary or domiciliary work, is often rendered extremely difficult, or impossible, by conditions which are not encountered in Hospital or Sanatorium, and the results of such treatment in these circumstances must, as a rule, be less satisfactory than can be obtained when the case is undertaken in an Institution.

The advising, or persuading, of a patient to submit to the induction of an artificial pneumothorax, is usually much more difficult under home conditions than in an institution, where the patient's outlook is very often that of acquiescence in, or resignation to, whatever is proposed, especially if one or two satisfactory cases are present.

The conditions as to cleanliness, overcrowding, etc., in the home, are, more often than not, such as to absolutely preclude all attempts at an induction with any hope of success. Then if the home surroundings are satisfactory, one is often met with the difficulty of obtaining a reliable temperature record, and of course, one has no control over the patient, and little means of knowing if one's instructions as to rest, diet, etc., are carried out.

Distance, time, and the moving of apparatus from place to place also curtail one's activities, and render an attempt at pneumothorax treatment under domiciliary conditions very difficult.

When an induction has been satisfactorily established, however, whether at home or in Sanatorium, it is usually possible to maintain the condition with a reasonable degree of success, as the patient is impressed with the improvement in his condition which usually follows a successful pneumothorax, but even in this state it is very difficult to insure that a satisfactory

mode of life is followed, and, of course, in many cases it is imperative that the subject should follow some form of employment, often unsuitable.

Altogether, therefore, it is quite obvious that the benefit accruing from the induction is necessarily increased when the patient is under conditions obtaining in an institution as regards discipline, routine, regularity, sufficiency of meals, etc. If, as is suggested by the Ministry, there should be a certain number of beds in the City and under the direct control of the Tuberculosis Officer for observation, some primary inductions of artificial pneumothorax could be attempted which are, at present, quite impossible.

Of some 7 cases of artificial pneumothorax treated under Dispensary or domiciliary conditions during the year 1925, four were attending the Dispensary periodically for refill after induction in Sanatorium, and have progressed fairly satisfactorily, being able to carry on light employment if necessary. Another case was visited at home, and an artificial pneumothorax induced for the relief of persistent haemoptysis, with such complete success that the patient was quickly fit to travel to Sanatorium in Switzerland, and has done quite well, although it has been found impossible, for some reason not stated, to maintain the collapse there.

Another patient on return from a long course of Sanatorium treatment had made little or no improvement, and it was decided to attempt to collapse the lung most affected. The house was visited on some eleven occasions for this purpose, but finally the attempt was abandoned as sufficient collapse to allay symptoms, etc., could not be obtained owing to adhesions.

A further case, on return from Sanatorium with an artificial pneumothorax, was found to have developed an effusion, which at first was allowed to remain, but increased to such an extent as to necessitate removal of fluid and replacement.

To illustrate the unsatisfactory conditions, it may be stated that two cases who attend the Dispensaries for periodical refill, one is deteriorating owing to very poor financial conditions, and anxiety, etc., due to threats of eviction for non-payment of rent. In the other case the home surroundings are very unsatisfactory, and it has been found that no reliance whatever can be put upon the temperature record or the patient's statements as to his mode of life, etcetera.

The nature and extent of any dental treatment provided by the Council for Tuberculosis patients.

There is no provision of dental treatment for tuberculous persons by the Health Committee.

Any arrangements for the provision of nursing or of extra nourishment for patients living at home.

The Health Committee make no arrangements for the provision of nursing for domiciliary cases. Extra nourishment to the extent of one quart of milk per day is granted to tuberculous persons under the conditions laid down by the Ministry of Health in Circular 257, *viz.*, "Patients who have received

an adequate course of Sanatorium treatment and whose medical condition is such that, with the grant of extra nourishment, they may be expected to maintain or recover full working capacity : and patients in whose case ultimate arrest of the disease may reasonably be anticipated, and who are waiting for admission to a Sanatorium."

The arrangements for treating non-pulmonary tuberculosis, especially tuberculosis of bones and joints in adults and in children, and for the provision of surgical apparatus, etc.

Six beds are retained by the Health Committee at Cosham Hospital for the treatment of surgical tuberculosis in adults. This has been found to be quite inadequate, and application has been made to the Ministry to increase the accommodation for such cases. Surgical Tuberculosis in children is treated at Alton, Heatherwood, and the Bristol Orthopaedic Hospital. In addition, the Consulting Surgeon visits the Dispensary fortnightly when cases of surgical tuberculosis attend. The Education Committee admit children convalescent from tuberculosis of bones and joints, to the Open Air Schools.

The necessary splints and other apparatus are supplied by the Health Committee, but in most cases the parents are required to contribute some part of the cost. (See table attached for results of Hospital treatment.)

The arrangements for "care" and "after care" and their working.

The "care" and "after-care" of patients is dealt with by the Tuberculosis Voluntary Care Committee, which works in conjunction with, and under the supervision of the Tuberculosis Officer. The Secretary to the Committee is a member of the Staff of the Health Department. Cases requiring assistance are brought to the notice of the Committee either by the Tuberculosis Officer, the Dispensary Sisters, or by the Health Visitors who visit the homes of the patients before and after Sanatorium treatment.

Assistance is given to provide clothing and boots to enable patients to accept the offer of Sanatorium treatment, to provide bedsteads and bedding, monetary grants to obtain extra nourishment, and help towards the cost of dental treatment, etc.

Particulars as to any local arrangements for finding employment for patients.

Endeavours are made to obtain suitable employment by communicating with employers, advertising, etc., and grants have been made in several instances to help patients to set up in business on their own account.

Statement as to the supply and supervision of shelters at the homes of patients.

Twenty shelters are at present provided by the Bristol Health Committee, and are lent to patients free of charge, on the recommendation of the Tuberculosis Officer. The shelters are periodically inspected by Sanitary Inspectors, and repairs carried out as required.

Any special points noted locally as to the incidence of Tuberculosis (e.g., occupation).

Any special methods adopted or proposed for the prevention of Tuberculosis.

These two paragraphs can most conveniently be considered together, as any special points noted in the incidence of tuberculosis in an area should necessarily guide the policy of the Local Authority in the development of their scheme. The aim of the Local Authority is, primarily, to reduce the mortality from tuberculosis by measures applicable to the whole population, and only secondarily to reduce the morbidity by the treatment of individual patients. The first object is attained up to a point by all regulations tending to conserve or improve the general health of the community, such as factory legislation, improvements in general sanitation and many others. It has been shown many times that the tuberculosis death-rate declines with the fall in the general death-rate.

The first steps in the direct campaign against Tuberculosis were taken really under a misapprehension. The legislators and their advisers considered that Pulmonary Tuberculosis was a disease which developed a very short time after exposure to infection, and, therefore, proceeded to provide Sanatorium beds. We now know that the matter is not so simple. It appears that the position is roughly as follows :—Infection by the Tubercle Bacillus is practically universal throughout this country. It has been proved that hardly anyone in England attains the age of 18 without having been infected—and that the majority receive their initial dose of tubercle much earlier. The great bulk of them have sufficient natural immunity to resist the infection, and the bacilli are encapsuled usually in a lymphatic gland. They are not killed, but are simply prevented from multiplying. There they remain constantly secreting exotoxin, which, circulating in the blood, stimulates the tissue cells to provide antibodies, which form an acquired immunity sufficient to protect the individual against super-infection either from within or without. Later in life—it may be years later—if the resistance of the individual becomes lowered through some cause or another, the Tubercle Bacilli get the upper hand and Pulmonary Tuberculosis results.

This natural immunization is a very delicate process, as the age of the individual, the natural inherited immunity of the individual, the size of the dose, and the virulence of the infecting organisms have all to be accurately adjusted. It is really remarkable that it is effected efficiently much more frequently than not. The age of the individual is most important, as before the age of four years, the lymphatic system is not completely developed, and infection before that age usually leads to fatal general tuberculosis. The natural immunity has been shown to vary greatly in different strains of guinea pigs, and there is no reason to suppose that man is different. It would appear, however, that acquired immunity is transmitted up to a point to the off-spring, as Drolet has shown that the children of subjects of Pulmonary Tuberculosis, who survive the early age periods, are less likely to develop the

disease, and that in those who do develop it, the disease runs a much more benign course. The size of the initial dose and the frequency with which it is repeated is also of importance. If the initial dose is large and is repeated frequently, the child becomes markedly hypersensitive, and the ' Phenomenon of Koch ' is observed. These children appear to extrude the *Bacillus* violently through multiple tuberculous abscesses opening through the skin.

A study of the age at death of persons dying of Pulmonary Tuberculosis in the City of Bristol can easily and rapidly be made on the graphs attached, when it at once becomes apparent that the type of disease has changed and is still changing. In 1913, the commonest age at death for both males and females was 25 years : in 1925, for males it was 45, and for females between 25 and 35. Also, that whereas the female death-rate in 1913, was in excess of the male, the reverse is the case in 1925. The graph of 1913 suggests either (1) that Bristol is a remote rural community, which it is not, or (2) that for years prior to 1913, large numbers of children were being subjected to massive doses with which they could not cope efficiently, and that they broke down and developed acute young adult Phthisis shortly after being subjected to the strain of industrial life. This latter view is rather supported by the excessive number of deaths in the very early years of life.

In addition, it is not too much to claim that this diminution of the number of deaths in the earlier years of life is due to the continuous treatment at the Dispensaries, and latterly also at Frenchay Park Sanatorium, and in the Open Air Schools at Knowle and in the Public Parks, of children showing the " stigmata " of Tuberculosis, *i.e.*, children showing signs of being unable to resist their initial and inevitable dose of Tubercle.

On account of the very marked excess of female deaths over male in 1923, that year was selected for investigation. The excess was found to be entirely of young married women. The pre-marriage occupations were then investigated and added to the occupations of the unmarried females, but nothing special was found. Chocolate and Tobacco workers were comparatively few, although those are the chief trades employing females in the City. The same explanation here appears to be not unreasonable—super-infection in childhood, incomplete immunity and rapid collapse under the strain of childbearing.

The obvious suggestions for future development are :—

General Suggestions.

- (1) The addition to the next Public Health Act of a clause to prohibit the living in the same house, except under certain specified conditions, of a baby under four years and another individual with Tubercle Bacilli in the sputum. If the consumptive cannot be removed, the baby must. There are precedents for legislation of this sort as in Iceland, where it is a crime to harbour a leper in the same

house as a child under fourteen, and in Chicago where no consumptive may live in the same house as a child under sixteen.

- (2) The tightening-up and rigid enforcement of all laws and regulations relating to the supply of pure food, especially milk, and the realization by the Government that to supply impure and unclean food is not merely an offence against the individual purchaser, but also a gross attack on the health of the community, which might properly be rewarded by much larger fines or even imprisonment.

Suggestions applying to Bristol specially.

- (1) A very considerable increase in the number of beds for advanced cases. As the Ministry of Health has recommended, these are better provided in a separate Institution either inside the City or within very easy access. It should be run more on the lines of a Convalescent Home ; the rigid discipline of a cure-sanatorium being quite unnecessary. It ought also to be made as bright and attractive as possible, so that patients may remain for long periods voluntarily, and resource to the compulsory clauses in the last Public Health Act avoided as much as possible. Estimated number of beds—50 at least.
- (2) The provision of an Open-Air Maternity Ward for pregnant women with active consumption. The number required is at present quite unknown, but a start could be made with 6.
- (3) A development of the Grancher system of boarding-out the babies of consumptive mothers in the country. This could perhaps best be undertaken by the After-Care Committee, and the co-operation of the Tuberculosis Officers of the neighbouring Counties would have to be obtained.
- (4) Provision of greatly increased accommodation in Open-Air Schools. The ideal, of course, would be to have all Elementary Schools open-air schools. The success of the Open-Air Classes in the Public Parks proves that Open-Air Schools need not necessarily be costly.
- (5) Increased accommodation for the treatment of Surgical Tuberculosis in adults. At present we have only 6 beds, which number is quite inadequate. This might profitably be combined with the
- (6) Provision for the treatment and subsequent training in suitable occupations of cases of Surgical Tuberculosis over the age of 14 years. There is at present nothing being done in this direction, but it would be a profitable expenditure if these people could be made self-supporting.

C. J. CAMPBELL FAILL, F.R.C.P., Ed.,

Tuberculosis Officer.

L. HEARN, M.B., B.S., Durh.,

Assistant Tuberculosis Officer.

SURGICAL TUBERCULOSIS: INSTITUTIONAL TREATMENT, 1921-2-3-4-5.

Table of Cases admitted to Institutions.

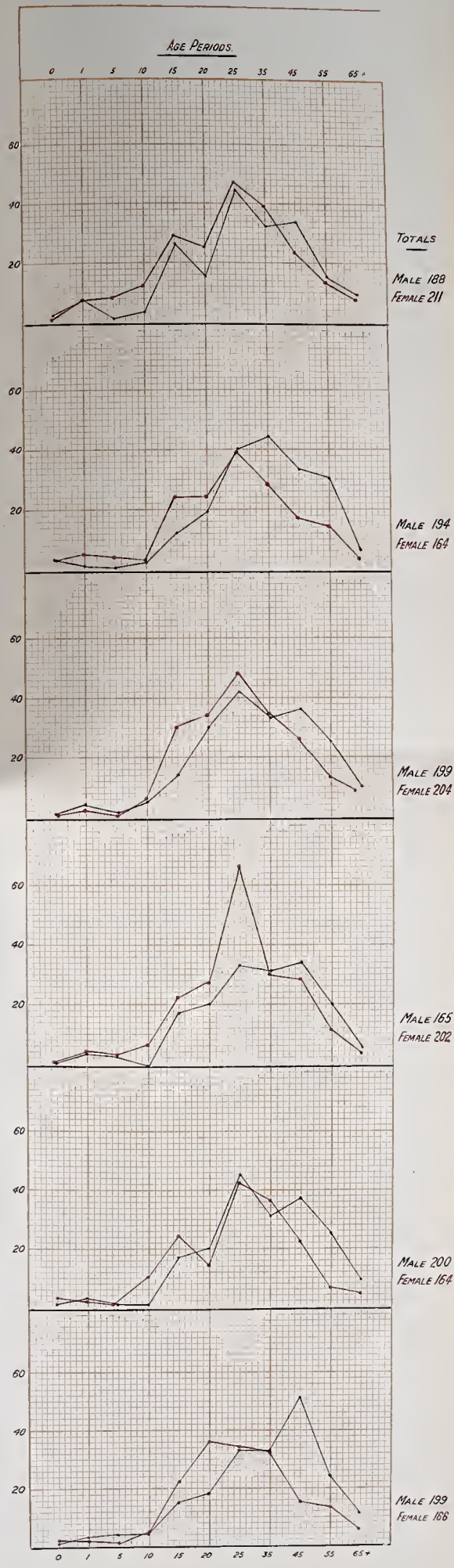
	Spine	Hand and Elbow	Hip	Leg	Knee	Elbow	Skin	Sacro, Il.	Hip and Spine	Sacrum and Bone	Abdomen	Hands	Finger and Skin	Psoas Abscess Iliac	Ankle	Ankle and Knee	Knee and Spine	Wrist	Meningitis	Hip and Shoulder	Spine and Hip	? T.B.	Total Cases	No. of Months (approx.)	Average,
1921. Adults	3	—	2	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children	—	—	—	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	3	—	2	—	2	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	11	33	—
1922. Adults	2	—	3	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Children	2	—	4	—	—	—	—	—	—	—	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—
Total	4	—	7	—	—	—	—	—	—	1	2	1	1	1	—	—	—	—	—	—	—	—	17	105	—
1923. Adults	5	—	3	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—
Children	2	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Total	7	—	4	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	14	82	—
1924. Adults	3	—	2	—	—	1	—	—	—	—	—	1	—	—	—	—	—	2	1	—	—	—	—	—	—
Children	5	—	6	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Total	8	—	8	—	1	1	—	—	—	—	—	1	—	—	1	—	2	1	—	—	—	—	23	370	—
1925. Adults	1	—	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Children	6	1	8	1	3	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	1	—	—	—
Total	7	1	11	1	5	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	2	1	31	461
TOTALS	29	1	32	1	8	2	1	1	1	1	2	2	1	1	3	1	2	2	1	1	1	2	1	96	1,051
																								10.9	

In addition :—PLASTER CASES.

2. Pulmonary Cases.
1. Glands
1. Scoliosis N.T. "
2. Hip (Arthritis) Cases.
1. Fistula-in-Ano. "
2. Pseudo-Coxalgia "

PULMONARY TUBERCULOSIS - DEATHS MALE & FEMALE

YEARS - 1913, 1921, 1922, 1923, 1924, 1925.



TUBERCULOSIS—DEATHS.

Year 1913 compared with years 1921, 1922, 1923, 1924 and 1925.

AGE PERIODS.	DEATHS.																							
	PULMONARY.												Non-PULMONARY.											
	MALE.						FEMALE.						MALE.						FEMALE.					
	YEAR						YEAR						YEAR						YEAR					
	1913	1921	1922	1923	1924	1925	1913	1921	1922	1923	1924	1925	1913	1921	1922	1923	1924	1925	1913	1921	1922	1923	1924	1925
0	2	3	1	—	1	1	3	1	1	3	2	7	7	15	7	11	3	6	5	6	5	1	2	2
1	7	1	4	3	3	3	5	2	4	2	2	10	10	13	12	19	10	13	1	11	11	3	4	4
5	1	—	1	2	4	4	4	—	2	1	1	7	7	4	8	3	9	7	2	3	8	3	6	6
10	3	2	5	—	1	4	12	6	6	10	4	6	6	2	4	5	2	4	4	4	5	6	6	6
15	26	12	14	17	15	15	29	30	22	24	22	3	3	2	1	1	5	6	3	7	9	6	9	9
20	15	19	30	20	18	18	25	24	27	14	36	2	2	5	3	1	1	7	2	1	3	2	2	2
25	44	40	42	33	45	33	47	39	48	42	34	1	1	3	1	2	8	3	2	2	4	2	6	6
35	32	44	33	31	31	33	39	28	36	32	32	4	4	3	1	7	1	3	1	1	2	4	6	6
45	34	35	36	34	37	53	23	17	26	22	15	2	2	1	4	3	2	1	2	2	3	2	2	2
55	15	32	25	20	35	24	13	14	13	6	13	1	1	2	3	—	3	1	1	2	3	1	3	3
65 & up	9	6	8	5	9	11	7	3	8	4	5	1	1	1	1	—	2	2	—	2	—	2	2	1
Totals	188	194	199	165	290	199	211	164	204	202	164	166	44	31	51	44	52	46	53	23	46	54	31	47

VENEREAL DISEASES REGULATIONS, 1916.

The Corporation have initiated the following scheme :—

A.—Treatment Centres.

The Committee of Management of the Bristol Royal Infirmary and the Bristol General Hospital each provide and maintain at their respective Institutions in Bristol a Treatment Centre, for the diagnosis and treatment of Venereal Disease.

Treatment Centres open for treatment of men and women.

Bristol General Hospital—

Men : Monday, 6 p.m. Thursday, 6 p.m. Friday, 1.30 p.m.

Women : Monday, 6 p.m. Friday, 1.30 p.m.

Bristol Royal Infirmary—

Men : Tuesday, 6 p.m. Thursday, 12 noon. Friday, 6 p.m.

Women : Monday, 6 p.m. Wednesday, 6 p.m. Saturday, 1.30 p.m.

The Infirmary and Hospital each provide and maintain at least two beds (one for each sex).

The Medical Officers (approved by the Ministry) appointed to take charge of the Treatment Centres :—

Bristol Royal Infirmary—Dr. S. Hardy Kingston.

Bristol General Hospital—Dr. Kenneth Wills and Dr. C. A. Gee.

Arrangements are in force whereby medical practitioners resident in Bristol, or in agreed surrounding areas, may have free consultation, also for demonstrations to medical practitioners of the methods of diagnosis and of systematic treatment.

The Treatment Centres are conducted in accordance with the principles set forth in the Memorandum of the Medical Officer, appended to the Ministry's Circular of 13th July, 1926.

Paid clinical assistants are appointed in rotation at the Clinics.

B.—Laboratory Facilities.

Pathological examinations in respect of matters submitted by medical practitioners are undertaken by the University of Bristol in accordance with the Venereal Diseases Regulations, 1916, and a Report is furnished by the Pathologist in charge of the University Laboratory (Professor Walker Hall) to each medical practitioner concerned. Medical practitioners submitted 1,114 specimens for examination during 1925.

C.—Supply of Salvarsan Substitutes.

The Corporation supply through the Medical Officer of Health approved substitutes for salvarsan to the Infirmary and Hospital for use at the Treatment Centres, and also distribute these drugs to 20 registered medical practitioners

practising in the City and County of Bristol, whose qualifications are duly certified as satisfactory by the Medical Officers of the Treatment Centres.

D.—Facilities provided by the Board of Guardians.

Six beds for male cases are provided at the Eastville Institution. All female cases are transferred for treatment to the London Lock Hospital.

E.—Port Facilities.

The Port of Bristol comprises three widely scattered docks :
Bristol Docks—in the City itself.

Avonmouth Docks—5 miles distant—accessible by road and rail.

Portishead Docks—12 miles distant—accessible by road and rail.

Notices in handbill form are posted through the Docks advising the provision of free treatment for all, and giving the times and places of the Venereal Disease Clinics at the Bristol Institutions.

Seafaring men who attend the Clinics are given continuation books and are also given a list of the Clinics available at other ports at home and abroad.

The question of providing special local facilities for treatment at Avonmouth Dock has not yet been decided.

F.—Propaganda Work.

A Committee has been formed in conformity with the suggestion in Para. 8, V.D. Circular, 13th July, 1916, for the purpose of disseminating information and for making suggestions to the Council, containing representatives of various workers and Local Bodies concerned in the prevention and treatment of these diseases, including suitable women and a representative of the Local Medical Committee ; members of Bristol Health Committee and the Medical Officer of Health are included.

The activities of this Committee comprise educational propaganda and lectures to social workers, mothers' schools, etc., by a panel of local speakers, medical and lay. 41 meetings were addressed during the year and a special public lecture was given at the University by Professor W. Brown, of Oxford.

V. D. CLINICS.

	BRISTOL GENERAL HOSPITAL			BRISTOL ROYAL INFIRMARY			TOTALS		
	M.	F.	Total	M.	F.	Total	M.	F.	Total
Number of persons under treatment or observation on 1st January, 1925 	686	266	952	1,697	603	2,300	2,383	869	3,252
Number of new cases dealt with during 1925 ...	309	53	362	413	150	563	722	203	925
Total attendances during the year 	2,610	1,576	4,186	12,093	4,944	17,037	14,703	6,520	21,223
Aggregate number of "In-Patient" days of treatment given 	216	25	241	173	347	520	389	372	761
Number of doses of Arsenobenzol compounds given	699			2,150			2,849		
Number of Intramuscular Injections 				1,301			1,301		

MATERNITY AND CHILD WELFARE.

Report by the Medical Officer in Charge.

This work is carried out in Bristol partly by the municipality and partly by voluntary agencies working in conjunction with the municipality of which the Bristol Infant Welfare Association and Council of Schools for Mothers is the chief.

The aim of the Maternity and Child Welfare Committee is to carry out as far as possible a complete scheme of Maternity and Child Welfare as laid down by the late Local Government Board with the object of providing for the ante and post-natal care of mothers, and the supervision of children up to the age of five years, when they pass to the care of the Education Committee.

Summary Report, 1921-25.

This being a Summary Report it is desirable to take each heading of the Complete Scheme and compare present conditions with those existing in 1920 : a fresh starting point for the next Summary Report will thus also be made.

Speaking generally, the work during the past five years has been carried on upon lines laid down prior to 1920 ; the most important new departures have been the institution of dental treatment and treatment of eye troubles and crippling diseases in young children through the Education Authority's Clinics and the acquisition of the right to send cases to Maternity Hospitals for confinement. These matters are more fully dealt with below.

1.—Supervision of Midwives.

There has been practically no alteration in the arrangements for supervision over those of 1920, and the officers employed are the same. The Medical Officer in charge of the Maternity and Child Welfare Section is nominally Medical Inspector of Midwives, but his duties are mainly administrative and supervisory, and inspection is carried out by the Deputy Inspector of Midwives, who is also Superintendent Health Visitor.

Each midwife in private practice is visited at her home at least four times a year when her register, bag, instruments, etc., are inspected ; these visits are purposely surprise visits, as a visit by appointment would mean finding everything in order for inspection. Other visits, in addition to the routine quarterly visit are made as occasion warrants.

The number of midwives in private practice in the City in 1920 and 1925 is as follows :—

	1920	1925
Midwives by examination	31	53
Bonâ-fide midwives	24	16
<i>Totals</i>	55	69

The number of bonâ-fide midwives is steadily diminishing, and they are now in an increasing minority. Speaking generally, the midwifery service of the City is of a fairly high level, and it is only exceptionally that any serious fault has to be dealt with.

The midwives here do not hesitate to send for medical help when required by the Rules of the Central Midwives Board to do so, and the medical accounts for attendance on their cases in 1920 were 141, amounting to £234 2s. 6d., and 168 in 1925 amounting to £213 1s. 6d. Recovery from the family of the whole or part of the fees so paid is attempted, but the amount recovered does not pay for the time and trouble entailed by its collection.

Practice by unqualified women exists here as practically everywhere, and it is impossible to put a stop to it as long as the word "habitually" in Section 1 of the Midwives Act, 1902, remains: amendment of this Section is urgently required.

Post-Certificate Course.

Arrangements for a non-resident post-certificate course for midwives has been made with the training centre of the Bristol Royal Infirmary and approved by the Ministry. The first course was started early in 1926.

2.—Ante-Natal Work.

In 1920, the ante-natal work done was carried out almost entirely by the municipality in five Clinics situated in Redcliffe, St. Augustine's, Bedminster, North Bristol and Barton Hill; some ante-natal supervision over their own cases was kept by the Bristol Royal Infirmary and Bristol General Hospital.

There has been no addition to these Municipal Clinics up to the end of 1925; the total number of ante and post natal patients attending them and the average attendance per session is as below:—

No. of attendances		Average per session
1920	2,694	12.5
1925	6,699	22.7

These figures show a satisfactory gross increase of 4,005, or an average yearly increase of 801 mothers attending the same number of Clinics. Many midwives still seem diffident in recommending their cases to the Clinics.

A report stating the result of any woman's medical examination at a Clinic is sent to the doctor or midwife engaged for the confinement.

Since 1920, both the Bristol Royal Infirmary and Bristol General Hospital have established regular ante-natal clinics, attendance at which is compulsory for all cases to be confined by the maternity departments of these Institutions. As these

Clinics are close to Redcliffe and St. Augustine's Clinics it has been considered desirable to arrange with these Institutions to take cases referred to their clinics by the municipality, and negotiations to that end are in progress. When they are complete, the municipal St. Augustine's and Redcliffe Clinics can be closed and new clinics opened at Shirehampton and Fishponds where they are badly wanted.

Sanction for new clinics at Horfield and Two Mile Hill has been received, and these were opened early in 1926.

Medical attendance at the Municipal Clinics is in the hands of specially qualified part-time lady doctors; assistance is given by the Health Visiting staff.

A certain amount of ante-natal visiting is done by the Health Visitors.

3.—Natal.

Beds for complicated cases.

Special provision for these has been made by the Bristol Royal Infirmary and Bristol General Hospital.

Beds for Normal cases.

In consideration of a grant, the Maternity and Child Welfare Committee has a right of admission free of charge to the Brunswick Square Maternity Hospital of 25 cases per annum, and the use of one bed for six months per annum at the Bristol Maternity Hospital, Southwell Street. This provision is for normal cases where confinement at home is for any reason considered undesirable.

Total Maternity Beds.

The number of maternity beds at present available in the City is 127, distributed as follows :—

Bristol Royal Infirmary ...	(Married & unmarried)	24
Bristol General Hospital	do. do.	12 to 15
Brunswick Square Maternity Hospital	(Married only)	19
	(Isolation)	2
Bristol Maternity Hospital, Southwell St.	(Married)	18
	(Unmarried)	15
	(Isolation)	2
Grove House Home ...	(Unmarried)	12
	(Isolation)	1
Southmead (Guardians) ...	(Married and Unmarried)	22
<hr/> <i>Total</i>		<hr/> 127 <hr/>

Applications for assistance at confinement were practically nil in 1920 but have gradually increased to 40 in 1925; of these 17 were for maternity beds, 20 for payment of midwives' fee, one for emergency attendance of a doctor at confinement, and two for help in the home during the lying-in period.

4.—Post Natal.

Treatment of troubles arising after parturition —

No special arrangement has been made for hospital treatment of post-natal trouble in mother or infant ; cases coming to our knowledge are referred to one or other of the Public Institutions.

Mothers attending the Ante-Natal Clinics are advised to report at the clinic after their confinement for observation and advice, and a considerable number do so.

Centres.

There are no municipal Maternity Centres, their place being taken by the 21 Schools for Mothers conducted under the Regulations of the Bristol Infant Welfare Association and Council of Schools for Mothers, which provide *inter alia* for infant consultations by a properly qualified medical officer, and that lectures, etc., are given by doctors or qualified nurses. These 21 Schools are carried on in close co-operation with the Maternity and Child Welfare Committee, and are scattered over the City, being thus much more accessible and useful than one large Maternity Centre. The Secretary of the Association has published a very interesting report of its activities during the past five years. The Council makes a grant to this Association of £1,200 per annum, and the City reaps great benefit from its activities. The five years' average of attendance at these Schools compared with attendance in 1925 is as follows :—

	Mothers	Children under 1 year	Children over 1 year
5 years average	2,524	1,250	1,690
1925... ..	3,051	1,180	1,964

Infant Clinic (Minor Ailment Centre, Municipal).

This Clinic, situated at Moorfields in a poor district at a considerable distance from any public institution, was established originally in connection with the Bristol University Settlement, and taken over by the City on 1st November, 1921.

It is open to any parent to bring a child under five years of age to see the doctor on session days, and the Clinic is open every day under the care of one of the Health Visitors for dressings, etc. That it supplies a want and does good work is undoubted ; when first taken over there was only one session weekly, but, owing to increase in the number attending, the sessions were increased to three per fortnight in June, 1923, and again to two per week on January 1st, 1926.

The following table shows the work of the Clinic in 1922 and 1925 :—

Moorfields Infant Clinic.

Year	Patients			Average attendance per Session	No. of Dressings	No. of Cases visited at home	Cases referred to Dr. or Institution
	New	Old	Total				
1922	749	707	1456	29.7	2,481	118	84
1925	852	1182	2034	28.6	3,695	402	80

Further provision for treatment of Child Ailments :—

By arrangement with the School Medical Service, cases of the following ailments in children under five can be referred to the School Clinics for treatment when no other treatment is being obtained :—

Eye Trouble (squint, etc.)

Rickets.

Infantile Paralysis and other crippling diseases.

Rheumatism.

When such cases come under notice during home visiting, endeavour is made to persuade parents to obtain treatment by a doctor or at a public institution, and failing its provision treatment at the School Clinic is suggested. It is found that in many cases the parents will take the child to the School Clinic when they will not provide other treatment. The cases so referred in 1925 were—89 ; Eyes, 67 ; Rickets, 14 ; Infantile Paralysis, etc., 8.

The School Medical Officers are pleased to be able to treat such cases in their early stages when improvement is more possible, rather than on their entry to school at a later stage when success is more difficult and education is interfered with.

The Chief School Medical Officer says :—“ This arrangement has met with a degree of success which has far exceeded our anticipations These diseases commonly commence before the age of five, usually around age three When the child has reached school age the paralysed limb may be gravely deformed, and the squinting eye permanently blind By getting the cases in the early stages these disastrous results can be entirely avoided, or at least modified. A number of children who otherwise would have gone through life with one eye blind, besides having the ugly deformity of a squint, have now both eyes perfectly straight and satisfactory vision. It may be of interest to record that in a number of instances parents have brought children while still under the age of one year.”

Nursery School.

The first Nursery School for toddlers was opened this year in Rosemary Street, in connection with the Bristol Infant

Welfare Association. It has been approved by H.M. Inspector and expects shortly to be recognised by the Board of Education for grant. It commenced with 12 children, now increased to 30, all in poor physical condition, but improving under their new and better conditions. The Maternity and Child Welfare Committee with the Ministry's consent makes a grant of 1 pint of milk daily to every child at the School who is certified by the School medical attendant to need it medically.

Milk Grants.

Grants of milk are made under the provisions of Circular 185 of the Ministry of Health dated 31st March, 1921. These grants are free and are made only in cases where careful enquiry into family income, confirmed by employers when the applicant is in work, shows the family to be necessitous according to an income scale approved by the Ministry.

Year	GRANTS.				Total	Cost of Milk Orders
	Expectant Mothers	Nursing Mothers	Children under 3 years	Children between 3-5 years		
1925	467	1,680	4,328	66	6,541	£2286 15 5

The Health Visitors report that the recipients derive much benefit to health from this source.

Ophthalmia Neonatorum.

The notifications of the above disease received during 1925 number 58. The following Table gives particulars of notified cases during the past 5 years :—

	Notifi- cations	Re- covered	Death before re- covery	Result un- known	Blind both eyes	Blind one eye	Lesser injury to sight	Live Births noti- fied	Cases per 1,000 live births
1921	113	110	1	1	Nil	Nil	1	8,440	13.3
1922	119	111	2	2	Nil	Nil	4	7,590	15.7
1923	82	77	1	1	Nil	Nil	3	7,420	11.3
1924	89	87	1	Nil	Nil	Nil	1	7,098	12.5
1925	58	55	2	Nil	Nil	1	Nil	6,931	8.3

The above figures show a practically continuous reduction in the case rate per 1,000 births for which the reason is not apparent, though the result is satisfactory ; it is possible that V.D. Clinic work may have had some part in it. That, in the 461 cases in five years, only one resulted in blindness (in one eye only), giving a blindness percentage to cases of 0.2, and that there were only 9 cases of lesser injury to sight, giving a percentage of 1.9, is also cause for satisfaction.

All notified cases are visited by the District Health Visitor the day the notification is received, and if not already under medical care, temporary treatment is given pending its provision, and all cases treated at home (including Institution out-patients) are followed up daily if necessary to see that the treatment advised is carried out : 264 visits for this purpose were paid in 1925.

Eye Cases other than Ophthalmia Neonatorum.

Similar care and attention is observed in less serious eye cases reported by Midwives or discovered by the District Health Visitors, and free issues of boracic crystals and cotton wool swabs are supplied where required. During 1925, the number of such cases dealt with was 458, involving 2,081 visits; in only one case did any injury result. Similar cases in 1920 numbered 580, and the reduction of 122 cases this year below those of that year seems to point to the exercise of greater care in observing the Rule of the Central Midwives Board with regard to the care of the eyes at the time of birth; the decrease in 'bonâ-fide' and increase in 'midwives by examination' may have some bearing on this point.

Dental Treatment.

Dental treatment for expectant and nursing mothers and children up to five years of age has been arranged for with the Bristol Education Committee, and the Ministry has sanctioned the use of the School Dental Clinics for this purpose. The cost to the Committee for a full dental session (whole morning or afternoon) is 32/-. The work was begun in January, 1925. Extractions, fillings, gum treatment, etc., are carried out, but no dentures can be supplied. If a woman requires dentures the preliminary work is carried out at the Clinic and from there she is sent to a certain private dentist, or the Bristol Royal Infirmary (who both work to an agreed scale of fees) for an estimate of the denture work required to be made. Enquiry is then made into the family income by the Health Department, and the patient given free dentures if the family is necessitous, or if not necessitous she is asked to contribute towards the cost according to her circumstances.

Particulars of treatment are given in the following Table :—

No. of Applications in 1925 : 372.

	Expect- ant Mothers	Nursing Mothers	Infants	Extrac- tions	Anæ- sthetics	Fillings	Dress- ings	Other Opera- tions
Cases seen by dentist	35	53	162	973	Local 210 Gas: 119	31	6	8
No. of cases treated	34	51	150					
Dentures supplied	14	—	—					

Total Cost.

The total cost to the Council (including £63 14s. 2d. for dentures) amounted to £108 4s. 2d.

Average cost of case excluding denture cases : 4/0 $\frac{1}{4}$.

The importance and value of this work is undoubted, and increase of applications towards the end of the year shows that the facilities provided are appreciated. Cases are recommended by the doctors at the Ante-Natal Clinics, Schools for Mothers and the Health Visitors, but the mothers have to make a written application to the Health Department.

“Truby King” Nurse.

The Committee with the sanction of the Ministry sent one of the Health Visitors at the beginning of 1926 to the Mothercraft Training Society, Cromwell House, Highgate, London, to be trained for three months in methods of restoring or increasing lactation and in the scientific dieting of marasmic infants. On her return she is carrying out this work in appropriate cases, and will lecture on these subjects at the Schools for Mothers. This is important work which should prove of much benefit, and which will probably ultimately occupy her whole time.

Sectional Staff.

Considering the constantly increasing work of the Maternity and Infant Welfare Dept., I am of the opinion that it should shortly be increased and developed. To this end, I would advise that the staff should consist of 21 District Health Visitors, the Truby King Health Visitor, and two other Health Visitors, who would not have districts allotted to them, but would be available for work in a district vacant through illness or other cause, or to supplement the Home Nurses in time of epidemic, or absence through sickness or holiday. By this arrangement any disorganisation of Maternity and Child Welfare work would, I think, be met. There need be no fear that when these two floating Health Visitors are not acting as supplements or substitutes, they would be idle; there will always be work for them in helping in specially heavy districts, and in picking up odds and ends which otherwise would not be seen to.

Clinics and Treatment Centres.**MUNICIPAL ANTE-NATAL CLINICS.**

<i>Clinic</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer.</i>
Bedminster	62 West Street	Every Thursday 10 a.m.	Dr. Beatrice Rogers
North Bristol	Brookland Inst., Lower Ashley Rd.	Every Tuesday and Wednesday 10 a.m.	Dr. M. G. Hughes
Redcliffe	90 Redcliffe Hill	Every Friday, 10 a.m.	Dr. Beatrice Rogers
St. Augustine's	89 St. George's Rd. Hotwells	Every Tuesday, 10 a.m.	Dr. Lily Baker
University Settlement	63 Barton Hill, Road	Every Friday, 10 a.m.	Dr. Lily Baker

MUNICIPAL INFANT CLINIC.

<i>Clinic</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer</i>
Moorfields	38 Chapter Street, Dean Lane, Moorfields	Every Tuesday and Wednesday 10.30 a.m.	Dr. R. C. Clarke

Hospitals provided or subsidised by the Local Authority.*The Maternity Hospital, Brunswick Square.*

Opened February, 1921. In order to prevent closure owing to financial embarrassment, the Town Council has purchased these premises and leased them to the Voluntary Committee which originally acquired the buildings.

Provides 21 beds for married women only, including two in isolation room.

Bristol Maternity Hospital and Temporary Home, 50 Southwell Street.

Provides 18 beds for married women.

„ 15 „ „ unmarried women.

„ 2 „ „ infectious cases.

**Voluntary Schools for Mothers and Societies affiliated to the
Bristol Infant Welfare Association and Council of School
for Mothers.**

**SCHOOLS FOR MOTHERS AND INFANT CONSULTA-
TION CENTRES.**

<i>School or Centre.</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer.</i>
Barton Hill (University) Settlement	63 Barton Hill Road	Wednesdays, 2.15—4.15 p.m. Thursdays, 2.30—4 p.m.	Dr. Lily Baker
Bedminster	62 West Street, Bedminster	Mon. & Thurs. 2.0—4.30 p.m. Wednesdays, 2.30—4.30 p.m.	Dr. Beatrice Rogers Dr. H. Dixon
Broad Plain	Girls' Club, 5, Broad Plain, St. Philip	Fridays, 2.30—4 p.m.	Dr. A. Stewart
Central	Central Hall Old Market St.	Wednesdays, 2—4 p.m.	Dr. L. M. Lister
Durdham Down	Mission House, Granby Hill, Durdham Down	Thursdays, 2.45 p.m.	Dr. W. A. Smith
Eastville	St. Thomas' Parish Hall, Eastville	Wednesdays, 2.30—4 p.m.	Mrs. Cyril Walker

<i>School or Centre.</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer.</i>
Hotwells	12 Dowry Square	Wednesdays and Thursdays, 2.15 p.m.	Dr. Beatrice Rogers
Horfield	Horfield Baptist Schools, Brynland Ave., Bishopston	Tuesdays, 2.30—4.30 p.m.	Dr. J. Angell James
Kingsdown	St. Matthew's Hall 12 Cotham Road South	Wednesdays, 2.30—4.30 p.m.	Dr. A. P. Milner
Kingswood (Situated in county dis- trict near City bound- ary.)	Wesleyan Old Schoolrooms, Black Horse Rd. Kingswood Hill	Wednesdays, 2.30 p.m.	Dr. C. J. Perrott
Knowle and Brislington	Y.M.C.A. Hall, Totterdown	Fridays, 2.30—4 p.m.	Dr. R. Clarke
North Bristol	Brookland Inst., Lower Ashley Road	Tuesdays and Fridays 2.30—4.30 p.m.	Dr. A. Stewart
Moorfields (University Settlement)	St. Saviour's Mission, Chapter Street	Mondays, 2.30—4 p.m. Fridays, 2.30—4 p.m.	Dr. R. Clarke
Redcliffe	90 Redcliffe Hill	Tuesdays, 2.0—4 p.m.	Dr. R. Clarke
Avonmouth and Shireh'mpt'n (University Settlement)	(a) Baptist Chapel Station Road, Shirehampton (b) Wesleyan Church Institute, Collins Street, Avonmouth	(a) Tuesdays, 2.30 p.m. alternately with (b). (b) Tuesdays, 2.30 p.m. alternately with (a)	(a) Dr. H. B. Falconar (b) Dr. H. Dixon
St. Augustine's	89-91 St. George's Road	Tues. and Fri., 2.30—4 p.m.	Dr. Beatrice Rogers
St. Lawrence	St. Lawrence Church House, Leadhouse Rd.,	Thursdays, 2.30—4 p.m.	Dr. J. Morton Evans
St. James' and District	10 Montague St., St. James'	Tuesdays, 2.30 p.m.	Dr. L. M. Lister
St. Paul's	St. Paul's Mission House, Dean Lane	Wednesdays, 2.30—4 p.m.	Dr. A. Stewart
Temple	The Parish Hall, Church Lane, Temple	Thursdays, 2.30—4 p.m.	Dr. R. H. Burnett
Westbury	College House, Westbury-on-Trym	Wednesdays, 2.30—4 p.m.	Dr. H. Adams

DAY NURSERIES.

<i>School or Centre.</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer.</i>
Bristol (Children taken temporarily as residents during illness of mothers)	27-29 Ashley Rd.	7.30 a.m. to 7 p.m. daily except Sats. & Suns.	Dr. A. N. Heron
Hotwells	12 Dowry Square	8 a.m.—6 p.m. Saturdays— 8 a.m.—1 p.m.	Dr. Marion Linton

NURSERY SCHOOL.

FOR TODDLERS 2-5 YEARS.

<i>School or Centre.</i>	<i>Address.</i>	<i>Open.</i>	<i>Medical Officer.</i>
The Friars	Rosemary Street	10 a.m.—12. and 2—4 p.m. daily except Sat.	Dr. H. Adams

Institutional provision for unmarried mothers, illegitimate infants and homeless children in the district.*Homes for Unmarried mothers and babies.*

Grove House, 148 Redland Road	...	12 beds and cots.
Bristol Maternity Hospital, Southwell Street	... ..	15 " "
Salvation Army Home, 89 Ashley Road	18	" "
Guardians' Institutions.		

Homes for Homeless Babies.

Ashley House, Somerset Street, Kingsdown.	30 cots.
Guardians' Institutions.	

Full information as to these Institutions was given in the report for 1920.

Statistics, 1925.**1. Midwives Act, 1902.****(a) Midwives.**

Midwives practising in City	...	...	128
" with training qualifications	...	...	110
" without " "	...	...	18
" in private practice...	...	...	70
" attached to Institutions, Homes, etc.	...	...	58
Notices of temporary practice	...	...	8

(b) Supervision.

Midwives inspected	...	...	75
Routine inspections	...	...	200
Unsatisfactory conditions reported	...	...	9
Failure to send in C.M.B. forms	...	...	11
Midwives interviewed and warned by Medical Inspector	...	...	1
Midwives interviewed and warned by Local Supervising Authority	...	...	1
Midwives reported to Central Midwives Board	...	...	—

(c) Cases attended by Midwives.

Births (including 209 stillbirths)	...	...	...	5,309
Percentage to total births notified	...	...	...	73.7
Puerperal Fever occurring in midwives practice	...	...	...	18
Percentage to total cases notified	...	...	...	25.0
Ophthalmia Neonatorum occurring in midwives practice	...	...	...	50
Percentage to total cases notified	...	...	...	86.2

(d) C.M.B. Forms received.

Form A (Medical Help)	...	...	...	1,349
„ B (Deaths)	...	...	...	27
„ C (Stillbirths)	...	...	...	99
„ D (Laying out the Dead)	...	...	...	11
„ E (Liability of Infection)	...	...	...	30
„ F (Artificial feeding)	...	...	...	62

(e) Unqualified practice.

Cases investigated	...	...	...	7
No action taken	...	...	...	7

2. Midwives Act, 1918.

Claims by Midwives for compensation	...	...	2
Claims for Medical Fees	...	...	168

3. Notification of Births Acts, 1907 and 1915.

Live births notified	...	...	...	6,931
Stillbirths „	...	...	...	264
				— 7,195
Notified by Doctors	...	...	...	1,178
„ „ Midwives	...	...	...	5,309
„ „ Relatives	...	...	...	708
Born living	3,599 males,	3332 females		
„ dead	146 „	118 „		

4. Home Visits by Health Visiting Staff.

First Visits to notified births	...	...	...	6,570
Revisits	...	...	...	53,623
Stillbirths	...	...	...	261
Ante-Natal	...	...	...	995
Visits to Tuberculosis patients	3,026
Other visits	14,519

Total ... 78,994

5. Case Records transferred to S.M.O.

	5,608
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6. Assistance Grants.

Medical fees under Midwives Act, 1918	168
Provision of Maternity beds	16
„ „ Doctor at confinement	...	...	1
„ „ Midwife	...	...	16
„ „ Home Help	...	...	1
„ „ Hospital treatment	...	...	1

JOHN C. HEAVEN, L.R.C.P., M.R.C.S., D.P.H.,
Medical Officer i/c Maternity and Child Welfare.

HAM GREEN HOSPITAL.

Report by the Resident Medical Officer, 1925.

Admissions and Discharges.

	Remaining in Hospital end of 1924	Admissions as notified	Recovered	Died	Mortality Case Rate per cent.	Remaining in Hospital end of 1925
Scarlet Fever ...	36	464	404	13	3	83
Diphtheria ...	165	1045	851	64	7.5	58
Enteric Fever ...	2	3	4	0	0	0
Measles ...	0	3	2	0	0	0
Mixed Infections and other diseases and observation cases...	11	34	270	5	1.9	9
	214	1,549	1,531	82	—	150

Scarlet Fever.

Scarlet Fever was decidedly of a more severe type than of recent years, showing a case mortality of 3%. A trial of the new Scarlet Fever Antitoxin is giving very promising results in treatment in early severe cases.

Return Cases.

Nine patients apparently carried the infection of Scarlet Fever home with them, giving a return case rate of 2.0%.

Diphtheria.

Diphtheria is still of a severe type, but the proportion of virulent cases is diminishing and the case mortality rate fell to 7.5 %. Twenty two cases required tracheotomy.

Two members of the staff contracted Diphtheria during the year. Our experience, over the whole period of our trial of the Schick methods, is appended and shows the very great benefit of these methods. Of 1,045 cases sent in as Diphtheria, about a tenth was found to be suffering from other diseases, chiefly tonsillitis. Among the 915 genuine cases, 64 died (7.5 %). Nearly all these fatal cases were admitted on the fourth day or after, by which time treatment cannot avert a fatal issue. It is a regrettable reflection that most of these cases could have been prevented and all these lives saved by an application of Schick methods to the juvenile population. The immunising material now available, toxoid antitoxin, is practically entirely devoid of risk and a patient can be protected against this disease with little or no pain, risk, or even inconvenience.

Cross Infection.

Thirteen cases contracted a second disease in Hospital out of 1,549 admissions, giving an attack rate of 0.8 per cent.

Report on Schick Methods for Diphtheria prevention amongst Staff.

During 1922 to 1923 (autumn), 212 members of the Staff were tested and positives immunised.

Since then, 160 new entrants have been immunised without testing them. Three hundred and seventy two in all have been dealt with.

During 1922, five members of the Staff contracted Diphtheria. Two positives contracted Diphtheria before immunisation. One of the above positives contracted a second attack of Diphtheria six months after the first. One positive refused immunisation and contracted Diphtheria six weeks later. One positive developed Diphtheria while being immunised. One negative developed Diphtheria three months after testing.

During 1923, six members of the Staff were attacked, Two negatives contracted Diphtheria during 1923, one being myself after 14 years' daily contact with the disease, the other being a nurse with three month's service.

Two strong positives developed Diphtheria after two doses only—0.5 and 1.0 cc.. T.A.T., two and nine months respectively after these doses, fairly sharp attacks.

One positive refused more than one inoculation and developed Diphtheria fifteen months later.

One untested case developed Diphtheria during immunisation. In 1924, no member of the Staff contracted Diphtheria.

In 1924, one nurse untested received 4 doses of T.A.T.—0.1, 0.5, 0.5, 1.0 c.c., from 23/7/24 to 8/8/24, and developed a fairly severe attack of Diphtheria six months subsequently.

One maid received the same four doses between 17/4/25 and 30/4/25 and developed a very severe attack of Diphtheria five months later.

For the last nine months no attacks have occurred.

Year	Tested	Un-tested	Immunised			Total attacks of Diphtheria		
			Doses			Loss of service (days)	No. of Cases Admitted	
			2	3	4			
1922	175	—	19	29	—	6	264	751
1923	37	25	23	25	—	5	233	671
1924	—	59	—	—	59	0	0	862
1925	—	76	—	—	76	2	110	1,045

TABLE OF ATTACKS.

		Per cent. attacked
127 Negative Reactors ...	3	2.3
Positive, non immunised or during immunisation	5	—
<i>Positives or untested—</i>		
42 Immunised with 2 doses	3	7.0
54 Immunised with 3 doses	0	.0
135 Immunised with 4 doses	2	1.5

All these attacks were confirmed bacteriologically and by virulence tests where there was any doubt as to genuineness of attack.

In addition, three cases occurred in 1924 with positive cultures morphologically but negative as regards virulence. These are not included in above, but in former years would have been counted as Diphtheria.

Previous to Schick methods our average rate was five per annum, rising to 12 in 1921 and 1920.

B. A. I. PETERS, M.D., D.P.H.,
Resident Medical Officer.

NOVERS HILL HOSPITAL.

Visiting Medical Officer's Report for 1925

Cases remaining from 1924...	...	...	35
Admitted 1925 :			
Scarlet Fever	253	...	...
Measles	69	...	...
Died :			
Measles	12	...	...
Other causes	5	...	...
Remaining in Hospital, 1925	...	...	27
Average age—M., 7.02 ; F., 8.96.			
Average time in Hospital—35.57 days.			
Cases classed as doubtful	...	...	10
Cases classed Not S.F.	...	...	7
S.F. contracted in Hospital	...	...	2
<i>Complications—</i>		<i>Other diseases—</i>	
Pneumonia and Bronchitis	13	Heart	8
Adenitis	15	Epilepsy	1
Rheumatism	5	Whooping Cough	1
Impetigo	9	Tuberculosis	1
Nephritis	5	Erysipelas	1
Enteritis	1	Septicæmia	1
Otorrhoea	10		
<i>Diphtheria—</i>			
" Hofmann "	44		
K.L.B. (Positive)	4		

E. H. C. PAULI, *Visiting Medical Officer.*

MENTAL DEFICIENCY ACT, 1913.

The following gentlemen have been approved by the Local Authority for the purpose of giving certificates under the provisions of the above Act.

Dr. J. O. Symes, in all cases.

Dr. H. L. Ormerod, Westbury-on-Trym, in all cases of adults.

Dr. Newman Neild, all cases.

Dr. R. A. Askins, for all cases under the age of 16 years.

Dr. W. Cotton, for cases in H.M. Prison, Bristol.

In practice, Dr. J. O. Symes certifies in all cases with an additional certificate from Dr. Ormerod or Dr. Newman Neild.

The Certified Institutions in and about Bristol are :—

Stoke Park, Stapleton	...	...	750	beds.
Royal Victoria Home, Horfield	...	...	42	„
Beech House	...	...	90	„
Heath House	...	...	88	„
Hanham Hall	...	...	240	„
Leigh Court	...	...	260	„
Clevedon Hall, Clevedon	...	...	108	„

The above are for all cases under the Act and are divided into beds for 768 males and 960 females, certified for 1,578. Brentry Certified Institution, Westbury-on-Trym... 230 Beds.

Males above the age of 18 years.

Chasefield Laundry Home, 874 Fishponds Road... 41 „

Females, only adults.

Southmead Institution, children only ... 100 „

Stapleton Poor Law Institution, all classes ... 120 „

Royal Fort Home, Bristol, approved Home, females 20 „

An Occupation Centre for employment of mentally defective boys and young men has been established at 15, Park Row, Clifton, and Centres for girls and women at Barton Hill and Bedminster. Supervision and employment is provided by day for the patients, and they are returned to the care of their own people by night.

The Local Control Authority is at present making arrangements for a Colony to provide between 500 to 600 beds at a site in Hortham Lane, Almondsbury. The site has been purchased, and plans are being prepared.

Supervising Officer, W. E. PRICE.

SUMMARY (for reference) OF NURSING ARRANGEMENTS, HOSPITALS AND OTHER INSTITUTIONS AVAILABLE FOR THE DISTRICT AND OTHER BENEVOLENT INSTITUTIONS AND SOCIETIES.

(Refer to Annual Report for 1921.)

AMBULANCE FACILITIES.

(a) For Infectious cases.—3 Motor Ambulances maintained by Bristol Corporation.

(b) For non-infectious and accident cases.—7 Motor Ambulances (6 stretcher and 1 sitting) by Bristol City and Marine Ambulance Corps; 6 motor Ambulances (stretcher) by St. John Ambulance.

Various large firms in the City have their own private Ambulances for emergency cases.

PATHOLOGICAL EXAMINATIONS.

Special Pathological examinations at the Pathological Laboratory, University of Bristol.

				1925		
				<i>Positive.</i>	<i>Negative.</i>	<i>Total.</i>
Typhoid Fever (Blood)	Typhoid ...	...	13	45	}	59
	Para. B. ...	...	1	1		
	(Faeces and Urine) ...	...	—	6		6
Cerebro-spinal Fever	...	...	—	1		1
				<i>Non- Virulent.</i>	<i>No K.L.B. found.</i>	
*Diphtheria (for Virulence)	51	39	10			100
				<i>Positive K.L.B.</i>	<i>Hofmann.</i>	<i>Negative.</i>
Diphtheria (swabs)	2	1	15			18

Milk.—52 examinations of milk samples were also carried out, and one sample was positive. On receipt of the Pathologist's reports the necessary action was taken at the farm.

LABORATORY WORK.

Routine—

Bacteriological examinations by the City Analyst :—

1925. No of specimens examined 14,843 Diphtheria.
726 Sputum.

(1,136 specimens of Sputum were examined at the Bristol Municipal Tuberculosis Dispensaries).

21 samples of milk were examined, of these 8 were examined for the Maternity and Child Welfare Department.

28 samples of certified and 40 samples of graded milk were examined for the Ministry of Health.

DIPHTHERIA ANTITOXIN.

Diphtheria Antitoxin supplied by Bristol Corporation gratuitously, 2,724,000 units.

* Of these, 75 were of patients at Ham Green Hospital to govern discharges.

THE WEATHER OF 1925.

Local Observations.

January.—The wild tempestuous weather amidst which the wettest year of the century passed away continued during the first few days of this month, New Year's Day and its immediate successor alone bringing to this neighbourhood an inch of rain with wind reaching gale force at times. With the 5th, however, pressure increased considerably and during the remainder of the month fair and rainy conditions alternated. Altogether the month was of a somewhat unusual character, for although from the 5th pressure was uniformly high, it gave a rainfall fully up to the normal, its sunshine was deficient, and its temperature much above the average.

The total rainfall locally was slightly above the average and varied from 3.35 inches at Bristol (St. Andrew's Park) to 2.96 inches at Frampton Cotterell, falling upon 19 days. The heaviest falls were 0.88 inch and 0.77 inch respectively on the 1st.

Mean atmospheric pressure was much above the normal, more so than in any January since 1911, when the month was cold and very dry. The extreme readings at 9 a.m. recorded were 30.690 inches on the 19th, and 29.061 inches on the 2nd; while the mean for the month was 30.205 inches—showing an excess of nearly two-tenths of an inch.

The mean temperature was 41.9 degrees, an excess of three degrees. The warmest day was the 31st with a mean of 50.2 degrees, and the coldest the 10th, mean 35.1 degrees. The extremes were 54.9 degrees on the 2nd and 25.7 degrees on the 10th. There were 7 frosty nights.

February.—Perhaps no month shows such extremes in regard to its rainfall as February, and this visit and that which immediately preceded it are very typical of its possibilities in this respect. Then the month proved the driest of the twelve, with only seven days of slight rainfall, while on this occasion every day brought some precipitation, although on three or four occasions the amounts were too small for measurement. As in January, mild conditions predominated, but unlike that month the amount of bright sunshine was well up to the average.

Mean atmospheric pressure at 9 a.m. was 29.643 inches, a value below that of any month since February, 1923, when 29.548 was recorded; this last being the lowest recorded for any month in the present century. Remarkably low readings were recorded on the 26th, the corrected value at 9 a.m. being 28.685 inches and at 6 p.m., 28.501 inches. The maximum for the month at 9 a.m. was 30.531 inches on the 2nd.

The total rainfall at Frampton Cotterell was 3.30 inches, and at St. Andrew's Park, 3.98 inches, falling upon 23 and 24 days respectively. The heaviest falls were 0.76 inch at Bristol and 0.69 inch at Frampton Cotterell upon the 25th.

The month makes the eleventh in succession with more than an average fall, its excess being about an inch.

The mean temperature was 41.8 degrees, two above normal, and four above that of the month a year ago. The warmest day was the 11th with a mean of 50.2 degrees, and the coldest the 14th mean 36.7 degrees. The extremes recorded were 53.7 degrees on the 10th, and 29 degrees on the 20th. There were 8 frosty nights.

March.—Following so long a series of wet and unfavourable months, March proved everything that could be wished for. A little more warmth might have been welcome, but with work so backward a very early spring-time was not to be wished for, and the frequent frosts and cold dry winds were of great value from an agricultural standpoint. Also these favourable conditions were prevalent over practically the whole of our islands, some stations reporting it to be the driest March on record.

Mean atmospheric pressure at 9 a.m. was 30.190 inches, a value only once previously exceeded for March this century; this being in 1907, when the mean was 30.224 inches. The extremes recorded were 30.558 inches on the 16th, and 29.563 inches on the 1st.

The total rainfall varied locally from 0.63 inch at Frampton Cotterell to 0.69 inch at St. Andrew's Park; falling upon 10 and 11 days respectively. These amounts show a deficiency of about 2 inches. The heaviest falls in 24 hours were 0.18 inch on the 20th at Bishopston and 0.17 inch on the 25th at Frampton Cotterell.

The mean temperature was 41 degrees, the month being easily the coldest of the winter. The warmest day was the 17th, with a mean temperature of 49.6 degrees; and the coldest the 13th, mean 32.5 degrees. Thirteen frosty nights were recorded. The maximum recorded for the month was 55.9 degrees on the 17th, and the minimum 21 degrees on the 13th; this last value being also the minimum for the winter.

April.—A cold unsettled month, but in spite of rainfalls being frequent, they were as a rule of so slight a character that conditions upon the whole were favourable from an agricultural point of view. Easter Day and its immediate predecessor were gloriously fine and gave the highest temperature of the year to date, but the weather of the subsequent holidays left much to be desired. The month closed with a period of slight rainfalls and very cold weather.

The total rainfall locally was 1.68 inches both at Frampton Cotterell and at St. Andrew's Park, the rainy days numbering 18 and 17 respectively; whilst the heaviest days falls were 0.48 inch and 0.50 inch, both upon the 5th. Although locally deficient to the extent of about $\frac{1}{2}$ an inch, over the greater part of our islands the fall was well above the average.

Mean atmospheric pressure at 9 a.m. was 29.843 inches, a value much below the normal. this making the fourth April in succession that such has been the case. The extremes recorded were 30.227 inches on the 21st and 29.405 inches on the 6th.

The mean temperature was two degrees below the average, the figures being 45.7 degrees, an identical value with that of the month a year ago. The warmest day was the 6th, mean 48.9 degrees, and the coldest the 4th, mean 39.6 degrees. The maximum recorded was 61.8 degrees on the 12th, and the minimum 29.3 degrees on the 4th. There were 4 frosty nights. Thunderstorms were experienced locally on the 24th and 25th.

May.—The first day of the month proved the large amount of truth there is in the old saying “Thunder in spring, cold will bring,” for a thunderstorm with hail during the afternoon was followed by a frost at night. The following night brought a repetition of frost, but during the remainder of the month the nights were warmer than is usually the case; the thermometer only upon one occasion falling below 40 degrees. Further thunderstorms occurred locally on the 10th, 18th, and 19th; very heavy local hail accompanying that of the 10th and heavy rain that of the 18th. For the rest, apart from a short period around the 14th, the month was consistently unsettled; rain falling every day up to the 11th, and again from the 22nd to the close.

The total rainfall was 4.58 inches at Frampton Cotterell and 4.59 inches at St. Andrew’s Park, falling upon 23 and 21 days respectively; the heaviest falls being 0.56 inch on the 26th, and 0.83 inch on the 18th. These totals are more than twice the normal and to find so wet a May it is necessary to go back to 1886 when 4.67 inches were recorded at Clifton by Dr. Burder. According to this authority 6.30 inches fell in 1869, and 5.86 inches in 1878; these three being the only wetter Mays locally since the middle of last century.

The mean pressure at 9 a.m. was 29.752 inches, a value remarkably deficient, and below anything previously recorded during the present century. The extremes recorded were 30.209 inches on the 13th, and 29.297 inches on the 28th.

The mean temperature was about normal, the value being 52.9 degrees. The warmest day was the 15th, with a mean of 59.9 degrees, and the coldest the 1st, mean 42.5 degrees. The extremes recorded were 73 degrees on the 15th, and 30.9 degrees on the 2nd.

June.—This month will stand out in our weather history as one of remarkable sunshine, and as the driest on record for the warmer season. February, 1891, alone equalling it in this respect. Apart from slight showers early on the 1st, and a few drops accompanied by distant thunder which were not measurable on the 12th, no rain whatever fell throughout the month; while during the daytime the sunshine was almost continuous, the only month to compare with it in this respect being July, 1911.

The amount of rain falling upon the 1st varied locally from 0.04 inch at Bishopston to 0.01 inch at Frampton Cotterell, so that as the normal fall is about $2\frac{1}{2}$ inches the deficiency is practically this amount. The dry weather was general over the whole of our islands, although it was only over our Southern and South Western Districts that had practically no rainfall.

In Scotland about half the usual quantity was reported, but elsewhere the only station reporting daily with anything like so much was Gorleston in Norfolk.

The mean temperature exceeded the average by half a degree, the value being 59.7 degrees. There was a period of remarkable heat around the 11th, on which date the thermometer reached 86 degrees, the other extreme being 36 degrees on the 3rd, showing the remarkable range of 50 degrees for the month. The warmest day was the 11th, with a mean of 68 degrees; and the coldest the 3rd, mean 50.3 degrees.

Mean atmospheric pressure at 9 a.m. was 30.127 inches, a value well above the normal. The extremes recorded were 30.397 inches on the 10th, and 29.905 inches on the 20th.

July.—This month upon the whole was of a seasonable character, and although the rainfall was above the average there was not too much under the circumstances. Upon the whole, however, the first half of the month was fine, with a period of heat and sunshine at the close of the second week. Then from the 17th to the close came frequent thunderstorms with more or less rain every day; the concluding week indeed proving the coldest and most unsettled of the summer.

The total rainfall at Bishopston was 3.61 inches and at Frampton Cotterell 3.03 inches; the rainy days being respectively 21 and 15. The heaviest falls were 0.38 inch at Frampton Cotterell on the 26th, and 0.84 inch at Bishopston on the 2nd; when at Frampton Cotterell only 0.20 inch was recorded.

Mean atmospheric pressure at 9 a.m. was 29.914 inches, a value well below the normal. The extremes were 30.311 inches on the 12th, and 29.404 inches on the 27th.

Mean temperature was well up to the average with a value of 62.2 degrees, these figures being nearly four degrees above those of the month in 1924. The warmest day was the 22nd with a mean temperature of 71.7 degrees, (this also being the warmest since the 13th of the month in 1923) and the coldest the 27th, mean 54.2 degrees. The extremes recorded were 82.1 degrees on the 13th and 44.5 degrees on the 10th.

In strong contrast to June, sunshine was deficient, while thunder occurred with great frequency, storms being experienced locally on eight occasions, with one of exceptional severity during the early morning on the 21st.

August.—This month opened with almost daily rainfalls to the 12th, after which came six days of fine warm weather, the last four also proving warm and summerlike. Between these two periods however, a good deal of rain fell, mostly of a thundery character. Altogether the month proved of a very normal type, with no particular outstanding features except perhaps in regard to sunshine which was decidedly deficient.

The total rainfall varied locally from 3.53 inches at St. Andrew's Park to 2.86 inches at Frampton Cotterell; falling upon 16 and 17 days respectively. These values show an average fall, although an inch below that of 1924. The

heaviest daily fall was 0.63 inch at Bishopston, and 0.50 inch at Frampton Cotterell on the 12th.

Mean atmospheric pressure at 9 a.m. was 29.955 inches, a value slightly below the average of the past 25 years. The extreme readings were 30.393 inches on the 30th, and 29.486 inches on the 22nd.

The mean temperature was 60.7 degrees, this being slightly below the normal but nearly four degrees below that of the month a year ago. The warmest day was the 31st, with a mean of 66.1 degrees, and the coldest the 26th, mean 55.5 degrees. The extremes ranged from a maximum of 78.5 degrees on the 17th, to a minimum of 41.5 degrees on the 30th.

September.—This month proved very disappointing, but at the same time very little rain fell up to the middle of the month and there were many fair and sunny days. On the other hand, the weather was cold and apart from a fine period from the 10th to the 14th, very changeable. With the 15th, however, the barometer began to fall daily and a period of very rough, wet and stormy weather followed. At the close a great improvement set in under the influence of an anticyclone which spread in from the South-west.

The total rainfall was 3.82 inches at Frampton Cotterell and 3.35 inches at Bishopston, falling upon 20 and 18 days. The heaviest falls were 1.10 inches and 1.13 inches respectively, falling upon the 19th; this being the largest daily amount recorded locally since October 7th a year ago. The value for the month shows an excess locally of about three-quarters of an inch.

Mean atmospheric pressure was slightly below the normal, the value being 29.982 inches. The maximum reading was 30.390 inches on the 13th, and the minimum 29.375 inches on the 22nd.

The mean temperature was 52.7 degrees, a value decidedly deficient, the month being the coldest September since 1912. The warmest days were the 1st and 30th, with means of 61.9 degrees, and the coldest the 20th, mean 45.8 degrees. The extreme readings recorded were 67.2 degrees on the 30th, and 31.4 degrees on the 13th; this being the only frosty night.

October.—Two distinct and sharply contrasting periods characterised this month. Following the improvement manifest at the close of September, fine weather set in on the 1st, and until the 15th there was no rainfall whatever. During this period there were many beautifully warm and summerlike days, although at times much mist or fog prevailed and during the second week frosty nights were well in evidence. With the 15th, however, a great change set in, pressure giving way rapidly until by the 23rd it stood at a lower level than it had since February 26th. Rough winds and almost daily rainfalls accompanied the change, the unsettled conditions being still in evidence at the close of the month.

Mean atmospheric pressure at 9 a.m. was 29.914 inches, showing a slight deficiency; while the extreme readings recorded were 30.540 inches on the 9th, and 28.729 inches on the 23rd.

The total rainfall locally was 3.88 inches at St. Andrew's Park and 3.47 inches at Frampton Cotterell ; falling upon 15 and 16 days. The heaviest falls were 0.80 inch on the 22nd at Frampton Cotterell, and 1.01 inches at Bishopston on the 19th.

Mean temperature was well above the average—the figure being 51 degrees. The warmest day was the 5th, with a mean of 61.5 degrees ; and the coldest the 14th, mean 40.1 degrees.

The maximum recorded was 68 degrees on the 4th, and the minimum 26 degrees on the 15th. There were six frosty nights.

November.—Very mild unsettled weather prevailed throughout the opening week, but with the 8th, the wind became north-easterly with a rapidly falling thermometer and winter set in over the greater part of our islands. From that date onwards indeed winter reigned supreme, for not on one day to the close of the month did the mean temperature come to within several days of the average ; while frost at night was almost continuous. During the closing days the frost showed a tendency to tighten its grip, the mean temperature of the last seven days being well below the freezing point. Upon the whole, however, although winter cold coming so early was not appreciated by everyone, the unusual amount of bright sunshine and the absence of rainfall during the period made the weather ideal in other respects.

The total rainfall locally fell short of the average by about $1\frac{1}{2}$ inches, the amount recorded locally varying from 1.92 inches at Bishopston, to 1.47 inches at Frampton Cotterell ; falling upon 12 and 14 days. The heaviest day's fall was that of the 2nd with 0.57 inch and 0.45 inch respectively.

Mean atmospheric pressure at 9 a.m. was 30.041 inches, this value was decidedly above the average. The extremes recorded were 30.522 inches on the 22nd, and 29.079 inches on the 8th.

The mean temperature was 38.7 degrees, showing a deficiency of no less than seven degrees. The warmest day occurred on the 2nd, the mean temperature being 53.6 degrees ; and the coldest on the 13th, mean 28.9 degrees. The extremes recorded were 60.1 degrees on the 2nd, and 18.7 degrees on the 27th. The frosty nights numbered 15.

December.—Throughout the first six days sunshine was continuous, while the frosts at night were intense, but with the 7th the wind became Southerly and a decided change and mild weather took place. This lasted until the 12th, when winter again returned and continued until the close of Christmas Day. This period was punctuated on the 22nd by a heavy snowstorm, while a little more fell early on the 25th. With the 26th, however, came a great change, a deep Atlantic depression appearing off our Western coasts bringing throughout the closing days of the year an unbroken series of rainfalls, high temperatures, and at times very rough winds.

The rainfall locally exceeded the average by $1\frac{3}{4}$ inches, the month proving the wettest of the twelve. The total at Frampton Cotterell was 4.17 inches and at Bishopston 5.36

inches ; falling upon 19 and 20 days respectively. The heaviest falls were 0.81 inch on the 29th, and 1.01 inches on the 28th ; 0.99 inch being also recorded at Bishopston on the 29th.

Mean atmospheric pressure was remarkably deficient, the value which was 29.386 inches being below that of any previous month during the present century. The extremes observed were 30.545 inches on the 4th, and 28.732 inches on the 20th.

The mean temperature was 37.2 degrees, two below the normal and seven below that of the month a year ago. The warmest day was the 29th with a mean temperature of 51 degrees, and the coldest the 4th, mean 24.3 degrees. The extremes recorded were 55.8 degrees on the 28th ; and 12.5 degrees on the 4th. There were thirteen frosty nights. The month proved the coldest winter month since February, 1919, when the mean was 35.7 degrees.

Taking the year as a whole it proved of a fairly favourable and average character. Its rainfall was above normal but only slightly so ; while its temperature was deficient, this, however, being almost entirely due to the extreme cold of its concluding months. The chief features of the year were undoubtedly the brilliant sunshine of June and the severe frost prevailing during the last few days of November and the early part of December.

The final results computed from observations taken daily at 9 a.m. have been as follows :—

Mean pressure (corrected)	...	...	29.913 inches.
Departure from average (25 years)	...	...	0.051 inch.
Greatest pressure	...	...	30.690 ins. on Jan. 19th
Least pressure	...	...	28.685 ins. on Feb. 26th
Extreme range	...	...	2.005 inches.
Total rainfall at Bishopston (St. Andrew's Park)	...	...	35.98 inches.
Departure from average	...	+	0.89 inches.
Heaviest rainfall in 24 hours	...	...	1.13 ins. on Sept. 19th
Number of rainy days	...	...	195
Total rainfall at Frampton Cotterell	...	...	31.98 inches.
Departure from average	...	+	1.51 inches.
Heaviest rainfall in 24 hours	...	...	1.10 ins. on Sept. 19th
Number of rainy days	...	...	195
Mean temperature (max. and min.)	...	...	48.8 degrees
Departure from average	...	...	0.8 degrees
Maximum shade temperature	...	...	85. degs. on June 11th
Minimum temperature	...	...	12.5 degs. on Dec. 4th
Extreme range	...	...	73.1 degrees
Hours of bright sunshine (estimated)	...	...	1614½
Days of bright sunshine	...	...	110
Days entirely overcast	...	...	58
Number of frosty nights	...	...	69

H. H. HARDING, F.R. Met. Soc.

For the observations relating to St. Andrew's Park, Bishopston, given in the above notes, I am indebted to the courtesy of Mr. H. Vicars Webb.

PUBLIC HEALTH STAFF (City).

Medical Officer of Health (whole time)	...	...	1
			(Port also).
Deputy Medical Officer of Health and School Medical Officer (whole time)	...	...	1
Home Nurses	...	...	3

CITY HOSPITALS.

Ham Green (Isolation)	Whole-time Resident M.O.	1
(Sanatorium)	Assistant do.	2
	Matron and Nursing Staff—	
	Hospital	55
	Sanatorium	30
Novers Hill (Smallpox or Fever)	Visiting Medical Officer (part time)	1
	Nursing Staff (including Home Sister and Nursing Superintendent)	12
Frenchay Park	Visiting Medical Officer (Tuberculosis Officer)	1
	Matron and Nursing Staff	6

MUNICIPAL TUBERCULOSIS DISPENSARIES.

Tuberculosis Medical Officer	...	...	1
Assistant Do.	...	...	1
Clinic Nurses	...	...	2

MATERNITY AND CHILD WELFARE DEPARTMENT.

Medical Officer-in-charge (part time)	...	1
Health Visitors. Superintendent	...	1
	District	21
Clinic Sisters. Tuberculosis	...	1
	M. & C. W.	1

Since November, 1925, Health Visitors also undertake the Home visiting of Tuberculosis patients.

ANTE-NATAL CLINICS AND INFANT CLINIC.

Visiting Medical Officers (part time)	...	3
---------------------------------------	-----	---

VENEREAL DISEASES.

(Work contracted out with Royal Infirmary and General Hospital).

INSPECTING STAFF.

Chief Sanitary Inspector	...	...	1
Superintendent	...	...	1
Meat and Food Inspectors	...	...	3
Dairies and Cowsheds	...	...	2
Workshops	...	...	1
Common Lodging Houses & Tenement Houses	...	...	1
District	...	...	10

Housing Inspectors.

Chief Housing Inspector	...	...	1
Inspectors	...	...	4
Assistant Inspector	...	...	1



**BRISTOL
PORT
SANITARY DISTRICT**
*As permanently constituted by order of the
Local Government Board dated 11th June 1894.*
Scale of Statute Miles

BRISTOL PORT SANITARY DISTRICT.

Report of the Medical Officers of Health for the Year 1925.

Port Sanitary Authority—The City Council.

Port Sanitary District permanently constituted—1894.

TONNAGE FROM FOREIGN PORTS—arriving at Bristol Docks (net registered tons) :—

City Docks, including Avonmouth and Portishead :—
1925, 3,215,330 tons.

GRAIN IMPORTS :—

1925—Qrs. 3,721,993, total for City, Avonmouth and Portishead Docks.

The accompanying map shows the limits of the Port Sanitary District through which goes the fairway to Gloucester. The Port Sanitary Authority is the City Council. The rateable value of the City (District Rate) in 1925 is £2,113,585. The gross expenditure in connection with Port Sanitary work for the financial year ended March 31st, 1926 is £1,682 2s. 4d., including expenditure of £180 12s. 9d. in connection with the Aliens Order, which is recoverable from the Government. The amount chargeable to the rates was £629 19s. 9d. which equals a rate of .075d. in the £.

Two factors have adversely affected the efficiency of Port Sanitary work in Bristol. First the loss of the inspecting launch, which has been sold and not replaced, secondly, a collision which put the Hospital ship out of use, depriving us at once of hospital beds for ship borne disease, and of a useful base for tide service. The importance of keeping the Port defences in a state of preparedness is emphasised by the frequent introductions of Smallpox, which have totalled 23 in the last forty years ; by the introduction of Plague, in 1901, and again in 1919, following which the Minister of Health caused a special inspection of the Port to be made in 1924, and the Minister addressed an official letter dated March 10th, 1925 to the Bristol Port Sanitary Authority. In this letter the Minister points out that it is the duty of the Port Sanitary Authority to take all necessary steps for safeguarding the health of the Port, and offered suggestions for the consideration of the Authority.

- 1.—A suggestion that all ships bound for ports in the Bristol Channel should be boarded off Barry ; this point to be considered in consultation with the other Port Sanitary Authorities in the Bristol Channel.
- 2.—In default of the revival of the former practice whereby the Customs' Officers boarded afloat vessels bound for the Port of Bristol, to arrange for pilots on boarding at the Western Station or elsewhere to put the usual health questions to the Master, and report sickness to the Bristol Port Sanitary Authority. This suggestion involves keeping the pilots supplied with

up-to-date lists of infected ports, which is already done.

- 3.—The suggestion to make arrangements with the local shipping agents and other available sources for information as to the probable time of arrival of vessels in the port. This is already done.

This suggestion also includes the use of wireless reports, which has been brought under the notice of the Docks Committee.

- 4.—Asks for information as to the present dealing with "infected" or "suspected ships," and the practicability of setting apart a special mooring station in Portishead or Avonmouth Dock.
- 5.—Suggests that arrangements be made for all vessels to be boarded by a Medical Officer immediately on arrival in dock, and of appointing for this purpose a whole-time Assistant Port Medical Officer of Health in addition to the present part-time Assistant Medical Officer, assuming that it is considered impracticable for a Medical Officer to board before entering the River or Docks.
- 6.—Suggests arrangements for obtaining a tug for boarding purposes in the case of Gloucester bound vessels ; a point already dealt with as far as possible.
- 7.—Asks for information as to hospitals for Plague, Cholera, or Typhus Fever.

In pursuance of the suggestion of the Ministry, paragraph 1, a Conference of the Bristol Channel Port Sanitary Authorities was held in Bristol on the 6th October, 1925, and after full discussion it was Resolved :—

- 1.—That in the opinion of this Conference, boarding at the present mooring or boarding stations in the Bristol Channel is frequently impossible, owing to weather conditions.
- 2.—That in the opinion of this Conference, the Scheme for boarding all vessels off Barry as suggested by the Ministry, is impracticable.
- 3.—That in the opinion of this Conference it is not necessary to medically-inspect all vessels from foreign ports before entering dock.
- 4.—That in the opinion of this Conference, arrangements could be made for the medical inspection of "infected" or "suspected" ships on arrival in a portion of the dock set apart for this purpose and properly protected, instead of in an open roadstead.

These Resolutions were communicated to the Ministry, who replied asking for early consideration to be given to the matters referred to in paragraphs 2 to 7 of their original letter of the 10th March.

Paragraph 2.—The Port Sanitary Committee is in communication with the Pilotage Authority, to secure immediate information from any pilot calling at the Western Station.

Paragraph 3.—dealing with the obtaining of early information as to probable arrivals, is already in force.

Paragraph 4.—At present, when an “infected” or “suspected” ship or a ship from an infected port requires medical inspection under the Cholera Regulations or for a disease notified under the Notification Act, immediate arrangements are made for a medical visit, although the ship would not be “held up” unless coming within the Cholera Regulations. The difficulty is not the taking of effective action when we know what to expect, but the absence of continuous medical inspection, so that every ship on arrival from foreign may be medically inspected. Such continuous medical inspection would require the appointment of a whole-time Medical Officer, and if the Boarding Station is to be in Kingroad or Walton Bay, the provision of a sea-going launch.

The second part of paragraph 4 deals with the possibility of using a mooring station for ships within the dock, instead of in the open roadstead of Kingroad. At an interview between representatives of the Port Sanitary Committee and the Docks Committee on 15th March, 1926, the latter pointed out that it was impossible to set aside a deep water berth for “infected” or “suspected” ships within the Dock, but that the Dock Authorities would give every help in allotting a suitable berth to such ships on request.

GENERAL MEDICAL INSPECTION IN THE PORT OF BRISTOL.

1.—Medical examination of passengers or crews arriving in the Port of Bristol is at present limited to—

(a) Arrivals from “infected” or “suspected” Ports, under the Cholera, etc. Regulations.

(b) Cases notified on arrival as having infectious sickness or suspicious illness on board.

(c) Aliens since April 1st, 1920.

2.—Port Medical Staff.

The City Medical Officer of Health holds since 1886 the separate appointment of Port Medical Officer of Health for which he receives an honorarium stabilised in 1923 at £100. In 1907, duties under the Foreign Meat and Unsound Food Regulations were imposed; but systematic medical supervision under the Food Regulations is not possible under existing conditions. The Assistant Port Medical Officer of Health appointed in 1884, is not salaried, but is paid by fee for work done. Two Emergency Port Medical Officers of Health (in private practice) are also appointed but seldom called for.

The total extra cost of this medical assistance for the year ended 31st March, 1926, was £36 18s. 0d.

Certain work is also imposed upon the Bristol Port Sanitary Authority under the Cholera, etc., Regulations in respect of Gloucester bound ships passing through Kingroad. The cost of this work is defrayed by Gloucester, and that of Aliens inspection by the Central Government.

3.—Co-operation of Customs' Officer.

All vessels arriving for the Port of Bristol (including Portishead, Avonmouth and the City Docks), and for the Port of Gloucester, pass through the anchorage of Kingroad.

Since the Customs' Boarding Station has been removed from Kingroad, they are no longer in a position to intercept arrivals before they come into Avonmouth Dock or take the river for Bristol, so that the Customs are now a negligible quantity so far as any information before docking is concerned.

4.—Port Inspection Launch.

In 1893, Bristol put a Port Inspection Launch on service in Kingroad, and sanitary boarding took place by arrangement with the Customs. The Port Inspection Launch was sold in 1912 and has not been replaced. A tug has to be hired when necessary to visit any vessel detained in Kingroad; otherwise arrivals cannot be inspected until they come within the dock. This is the general rule.

5.—Hospital Accommodation.

In 1893, Bristol provided a Hospital Ship (20 beds) for ship-borne cases, conveniently moored at the river mouth. This hospital was run down in 1916, sold, and has not been replaced. The nearest available hospitals are the City Hospitals (6 miles). There are no contact shelters, nor waiting rooms available for medical examination over which the Port Sanitary Authority has control. The nearest cleansing and disinfecting station (6 miles) is at the Central Disinfecting Station, Bristol.

Procedure.

The present procedure is :—(1), Arrival of "infected" or "suspected" ship under Cholera Regulations: held up by pilot in Kingroad or Walton Bay: tug hired for medical visit. (2), Other ships arriving: proceed to berth in dock: Port Sanitary Inspector visits and enquires. If infectious disease found, or if from infected port, medical officer advised and visits. (3), Case and effects removed to City Hospitals: disinfection of cabins, etc. carried out, rat precautions carried out for Plague, and water supply replaced when necessary.

The present system which has now obtained for some years has the excuse of success for its continuance, and it is difficult to suggest what further precautionary measures can be adopted short of (1) replacement of the Sanitary Launch and the Hospital ship, and (2) constitution of an adequate whole time medical service to deal not only with the sanitary and disease service, but also with the inspection of foods and of aliens.

Notifications of Infectious Disease and Deaths, during 1925.

			Notifications		Deaths.
Enteric Fever	...	...	6	...	2
Measles	...	...	2	...	—
Acute Primary Pneumonia	...	...	1	...	—
Malaria	...	...	8	...	—
Pulmonary Tuberculosis	...	...	3	...	1
Violence	...	...	—	...	2
			—		—
	Totals	...	20	...	5
			—	...	—

Beri Beri.—The S.S. “Manaar” arrived at Avonmouth on August 3rd, 1925, from Australia via Colombo and Hull. Four Indians of the crew were found to be suffering from Beri Beri. Dr. Jacques visited with Dr. Rolfe and reports :—

“All suffered from loss of knee jerk and muscular tenderness in the gastrocnemii and also from characteristic rhythm and heart sounds. Two were of the “wet” or cardiac type, and two of the purely “dry” or nerve type. Conditions made it difficult to determine the presence of anaesthetic skin patches. The rice used appeared to be of good quality and not over-milled. The men had been in the ship for nine months.”

The patients were admitted for treatment to the Bristol Royal Infirmary.

Malaria.—The S.S. “Trident” from Bombay and Karachi via Port Said, Oran, and Falmouth, arrived at Avonmouth, November 15th, 1925. On enquiry it appeared that seven men had been removed to Hospital in Bombay, suffering from Malaria. During the voyage other cases occurred on board but were not logged. All the crew had been given quinine daily since leaving Sourabaya (Java) on August 14th. On arrival at Avonmouth two men were removed to Ham Green Hospital, in whom Dr. Peters reported that benign tertian parasites were present in the blood. The facts were reported to the Ministry of Health, and forward notices sent to Cardiff and Liverpool.

CHOLERA REGULATIONS.

Table A—Vessels from Foreign.

Arrivals during 1925 requiring Medical Inspection as :—

	Bristol.	Gloucester.	Totals.
Infected	—	—	—
Suspected	—	—	—
Having come from Infected Ports }	39	3	42
Total	39	3	42

	Inspected in Walton Bay		Inspected in Kingroad		Bristol Boats Inspected at Dockside		
	Bristol Boats	Glo'st'r Boats	Bristol Boats	Glo'st'r Boats	Bristol	Avon-mouth	Portis-head
Infected
Suspected
Having come from Infected Ports...	2	...	1	2	35	2
Total	2	...	1	2	35	2
	2		1		39		

DANGEROUS DRUGS ACT, 1920.

Circulars Nos. 357 and 1095.

The Port Sanitary Sub-Committee agreed to allow the Assistant Port Medical Officer to carry out any work in connection with these Circulars.

Association of Port Sanitary Authorities.

The Chairman of the Port Sanitary Sub-Committee and the Port Medical Officer of Health attended a meeting of this Association in London on 29th May, 1925.

FORM A.

Amount of Shipping entering the Port Sanitary District during
the year 1925.

1923.	Number.	Tonnage.	Number Inspected.		Number reported to be Defective.	Number of Orders issued (informal).	Number of Formal Notices.
			By the Medical Officer of Health.	By the Sanitary Inspector.			
†Foreign—							
Steamers	1,062	2,063,385	*39	1,062	131	126	5
Sailing	3	3,528	—	3	—	—	—
Fishing	—	—	—	—	—	—	—
Total Foreign	1,065	2,069,913	39	1,065	131	126	5
Coastwise							
Steamers	4,521	983,964	—	679	30	30	—
Sailing	1,607	165,453	—	346	8	8	—
Fishing	—	—	—	—	—	—	—
Total Coastwise	6,128	1,148,417	—	1,025	38	38	—
Total Foreign and Coastwise	7,193	3,215,330	*39	2,090	169	164	5

*Not including 50 vessels individually inspected under the Aliens Order.

†Not including 177 vessels individually inspected from Irish Free State.

RATS AND MICE DESTRUCTION ACT, 1919.

This Act is administered in the City by a Rats Officer, acting under the instructions of the City Engineer. and in the Port by the Chief Port Sanitary Inspector.

At Avonmouth Docks a rat-catcher is employed by the Docks Committee in clearing the sheds and warehouses. He is given authority to work on board ship in the docks, for which he is compensated by the master or agents.

At Bristol Docks, the Rats Officer supervises the destruction of the rats in the sheds and in the granaries, and conducts a systematic search for the rodents.

The following tables give the results of their work.

FORM B.

RATS DESTROYED IN 1925. (Avonmouth Docks).

Number of Rats.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total in Year
Caught alive ...	505	633	374	430	563	562	536	467	428	504	454	368	5,824
Found dead ...	292	320	392	278	307	437	308	269	552	407	530	488	4,580
Total ...	797	953	766	708	870	999	844	736	980	911	984	856	10,404
From Sheds and Warehouses in Docks ...	615	885	652	708	778	829	748	628	823	795	663	661	8,785
From Ships in Dock ...	182	68	114	—	92	170	96	108	157	116	321	195	1,619
Total ...	797	953	766	708	870	999	844	736	980	911	984	856	10,404
Rats examined ...	11	10	12	6	16	8	14	—	10	8	11	10	116
„ infected with Plague ...	—	—	—	—	—	—	—	—	—	—	—	—	—
„ not infected ...	11	10	12	6	16	8	14	—	19	8	11	10	116
Poison baits laid on Docks ...	—	1,522	17,200	1,000	2,000	5,760	1,105	7,200	4,000	807	1,000	14,560	56,154

Bristol Docks.

1925		Traps Laid.	Rats Caught.	Poisoned Baits Laid.	Baits Taken.
January	...	414	99	550	About two-thirds
February	...	240	52	500	
March	...	378	87	500	
April	...	180	43	500	
May	...	420	90	650	
June	...	216	48	—	
July	...	456	84	1,000	
August	...	318	60	1,250	
September	...	252	49	500	
October	...	312	69	600	
November	...	336	62	550	
December	...	264	47	700	
Total	...	3,786	790	7,300	

* Figures supplied by City Rats Officer.

Portishead Docks.

1925				Rats caught and destroyed.
January	...	...	...	26
February	...	...	...	52
March	...	...	...	40
April	...	...	...	50
May	...	...	...	40
June	...	...	...	30
July	...	...	...	30
August	...	...	...	14
September	...	...	...	20
October	...	...	...	45
November	...	...	...	40
December	...	...	...	45
Total ...				432

D. S. DAVIES, M.D., D.P.H.,

Port Medical Officer of Health.

JOHN C. HEAVEN, L.R.C.P., M.R.C.S., D.P.H.,

Assistant Port Medical Officer of Health.

PRECAUTIONS AGAINST PLAGUE.

FORM C.

Particulars relating to Vessels from "Infected" Ports
or "Suspected" Ports.

1925 Name of Vessel	Date of Arrival	Whether "infected" "suspected," or from "infected" Port	Method of Rat destruc- tion. Fumigation		Trapping	No. of Rats killed	Whether Certificate of Deratisation issued	Remarks
			SO ₂	HCN				
1	2	3	4	5	6	7	8	9
s.s. "Real"	Jan. 4	Infected Port						
"Salacia"	" 12	"						
"Terrens"	" 13	"						
"Sunray"	" 13	"						
"Wordsworth" ..	" 22	"						
"Registan"	" 24	"						
"Mitra"	Feb. 11	"						
"Orvieto"	" 15	"						
"Picton"	" 23	"						
"Leominster" ..	" 26	"			Yes	68		
"Clyne Rock" ..	" 27	"						
"Bellaila"	Mar. 3	"						
"Edfou"	" 15	"						
"Anglo Mexican" ..	" 17	"						
"Heathside"	" 18	"						
"Datan"	" 20	"						
"Theodoros"	Apr. 16	"						
"Yorkhill"	" 20	"						
"Othello"	" 23	"						
"Maplegrove" ..	" 26	"						
"Dorsetshire" ..	" 28	"						
"Nethergate" ..	May 22	"						
"Oscar Gorthon" ..	" 22	"						
"Kemendine"	" 23	"						
"Mahanada"	June 1	"						
"Clan Ross"	" 17	"						
"Astronomer"	July 18	"						
"Esneh"	" 21	"						
"Blairgowrie" ..	" 22	"						
"Clan Stewart" ..	" 25	"						
"City of Florence" ..	Aug. 7	"						
"Yorkshire"	" 14	"						
"Henzada"	" 31	"						
"Tarensay"	Sept. 3	"						
"Bardistan"	" 5	"						
"Mandalay"	" 14	"						
"Herefordshire" ..	" 24	"						
"City of Lincoln" ..	" 27	"						
"Motia"	" 30	"						
"Jepsbek"	Oct. 22	"						
"Sagowing"	Nov. 1	"						
"Trident"	" 15	"						
"Heathside"	" 20	"						
"Edfou"	" 21	"						
"Kandahar"	Dec. 2	"						
"Pegu"	" 10	"						
"Knaresbro"	" 21	"						
"Rydal Hull"	" 26	"						

The greater proportion of these vessels have only part cargo to discharge and go elsewhere to complete.

Diseases, etc., occurring on ships during voyage or on arrival, 1925.

1925.	Name of Ship.	Loading Port or Country.	Disease, &c.	No. of Cases	General Particulars
Jan. 1	s.s. "Blaafjelds"	Valencia ...	Venereal Disease ...	1	Medical treatment advised
" 7	" "Drayton Manor"	Pasages, Spain ...	Swelling in Groin ...	1	Medically treated in Bristol General Hospital
" 10	" "Shannonmede"	La Plata ...	? Mental Trouble ...	1	Medically treated on arrival
" 11	" "West Cobalt"	Baltimore, U.S.A. ...	Burns ...	1	
" 12	" "Salacia"	Calcutta ...	Diarrhoea ...	2	Medical treatment advised.
			Fever ...	1	Removed to Hospital at Port Sudan.
" 23	" "Mary"	Valencia ...	Septic Foot ...	1	" " " " Port Said.
Feb. 17	" "Valascara"	Buenos Aires ...	Venereal Disease ...	1	Medically treated on arrival.
			Severe Cold ...	1	
" 17	" "Orvieto"	Karachi ...	Sore Throat ...	1	" " " " "
Mar. 12	" "Betty Musk"	Rufisque ...	Phthisis ...	1	Removed to Hospital.
" 14	" "Annan"	Glasgow ...	Venereal Disease ...	1	Medically treated in Bristol Royal Infirmary.
" 18	" "Ayrshire"	Melbourne ...	Influenza ...	1	Medically treated in Southmead Infirmary.
" 22	" "Parthenia"	Canada ...	Smallpox ...	1	Removed to Hospital at Columbo.
" 24	" "Dagmar Bratt"	Gothenburg ...	Measles ...	1	Admitted to Southmead Hospital.
April 9	" "Tregenna"	Port Sudan, &c. ...	? Influenza ...	1	Medically treated on arrival.
" 20	" "Yorkhill"	Karachi ...	Chill ...	1	
" 20	" "Dorset"	Auckland, New Zealand	? Venereal Disease	1	Medical treatment advised.
May 4	" "Margretian"	Valencia and Burriana	? Venereal Disease	1	Medically treated on arrival.
" 15	" "Boekelo"	Rotterdam ...	—	1	Fatal accident at Burriana.
" 21	" "Savada"	New Orleans ...	Stomach trouble ...	1	Medically treated on arrival.
" 22	" "Nethergate"	Karachi ...	Gastritis ...	1	Removed to Hospital at Glasgow.
" 23	" "Kemmerdine"	Rangoon ...	Pneumonia ...	1	Left at Suez.
" 25	" "Tanefjeld"	Marseilles ...	Venereal Disease ...	1	Medical treatment advised
June 1	" "The Forrester"	France ...	Cold on Chest ...	1	
" 1	" "Potomac"	Tampico ...	Injury to Foot ...	1	Medically treated in France.
" 7	" "Bayano"	Kingston, Jamaica	Abdominal Obstruction	1	Died at Sea.
			Abdominal pain ...	1	Medically treated in Bristol General Hospital.
July 5	" "Jeff Davis"	New Orleans ...	Phthisis ...	1	Medically treated on arrival.
" 9	" "Cornishman"	Montreal ...	Accident ...	1	Removed to Hospital in Belfast.
" 24	" "Suffolk"	Wellington ...	Abdominal pain ...	1	Medical treatment recommended.
" 26	" "Camito"	West Indies ...	Phthisis ...	1	Discharged Home for treatment.
" 26	" "Clan Stuart"	Bombay, Karachi	Enteric Fever ...	1	Removed to Ham Green Hospital.
August 3	" "Manaar"	Sydney, Australia	Fever ...	1	Landed at Tilbury.
			Beri Beri ...	4	Removed to Bristol Royal Infirmary.
" 23	" "Cavina"	Kingston ...	Minor Accidents and Constipation	6	Medically treated.
Oct. 2	" "City of Alexandria"	South Africa ...	Cancer and Heart Trouble	1	Passenger.
" 3	" "West Nosska"	Baltimore ...	Enteric Fever ...	1	Admitted to Southmead Infirmary.
" 8	" "E. K. Venezelos"	Russia ...	Sciatica ...	1	Left in Hospital at Glasgow.
" 8	" "Balsam"	Baltimore ...	Haemorrhoids ...	1	Left at Piraeus.
" 8	" "Cavina"	Port Pirie ...	Venereal Disease ...	1	Medically treated in Bristol General Hospital.
" 15	" "Newton Hall"	Novorossisk ...	Jaundice ...	1	" " " " in Swansea.
			? Fever ...	1	Left in Hospital at Oran.
" 15	" "Berwickshire"	Freemantle, Australia...	Swollen feet & Kidney Disease	1	Patient discharged Home.
" 16	" "Storfors"	Lake Vernon ...	Enteric Fever ...	2	Admitted to Southmead Infirmary, both men died
" 25	" "Clan Chattan"	Capetown ...	Influenza ...	1	Medically treated on arrival.
" 25	" "Colwith Force"	London ...	Enteric Fever ...	2	Admitted to Southmead Infirmary.
Nov. 8	" "Capsa"	Curacao ...	Heart trouble & Rheumatism	1	Medically treated on arrival.
" 8	R.M.S. "Motagua"	Santa Marta ...	Accident ...	1	Removed to Bristol Royal Infirmary.
" 9	s.s. "Spirila"	New Orleans ...	Measles ...	1	Removed to Ham Green Hospital.
" 15	" "Paris"	Nantes ...	Rupture ...	1	Discharged Home.
" 15	" "Trident"	Bombay and Karachi...	Cold (Kidneys) ...	1	Removed to Bristol Royal Infirmary.
			Phthisis ...	1	Left in Hospital at Durban.
			Malaria ...	7	" " " " Bombay.
			" " " " " "	2	Removed to Ham Green Hospital.
" 22	" "Woolburn"	Russia ...	" " " " " "	6	Medically treated on arrival.
" 22	" "Philotis"	Hamburg ...	" " " " " "	1	Left at Constantinople.
Dec. 1	" "Minna Cords"	Valencia ...	" " " " " "	1	Medically treated on arrival.
" 6	" "Patuca"	Santa Marta ...	Venereal Disease ...	1	" " " " in Bristol Royal Infirmary.
" 10	" "Ijosprait"	Oran ...	Intestinal Obstruction	1	" " " " on arrival.
" 10	" "Teviot"	Glasgow ...	Venereal Disease ...	1	" " " " " "
" 18	" "Hardenburg"	Montreal ...	Accident ...	1	Patient died.
" 21	" "Ino"	Antwerp ...	Orchitis ...	1	Medical treatment recommended.
" 22	" "Rita Sister"	Burriana ...	Injured Eye ...	1	Attended Bristol General Hospital.
			Stomach trouble ...	1	Medically treated on arrival.
			Primary Pneumonia	1	Admitted to Southmead Hospital.

VESSELS (other than those dealt with in Form C) SUBJECT TO MEASURES OF RAT DESTRUCTION.

Vessels fumigated by Sulphur Dioxide S.O ₂ .	No. of rats killed	Vessels fumigated with Hydrocyanic Acid. H.C.N.	No. of rats killed	Vessels where trapping, poisoning, etc. were employed.	No. of rats killed	Fumigation Certificate issued on Form 'Port 10.'	Remarks.
s.s. "Colonian"	182	s.s. "Piako"	—	s.s. "Leominster"	68	s.s. "Piako"	9,260 poisonbaits laid in the holds and between decks of nine vessels after dis- charge of cargo.
"Changuinola"	—			"Welshman"	27	"Colonian"	
"Huntingdon"	—			"Cadillac"	5	"Bristol City"	
"Bristol City"	—			"Motagua"	—	"Changuinola"	
"Chicago City"	—			"Colonian"	170	"Huntingdon"	
"Camito"	—			"Cornishman"	22	"Chicago City"	
"Boston City"	—			"Oxonian"	38	"Camito"	
"Parthenia"	82			"Luchana"	115	"Boston City"	
"Cavina"	—			"*Juni"	—	"Parthenia"	
"New York City"	—			"Potomac"	6	"Cavina"	
"Kastalia"	92			"*Juni"	—	"New York City"	
"Concordia"	96					"Kastalia"	
"Wells City"	—					"Concordia"	
"Kaikoura"	48					"Wells City"	
"Camito"	—					"Kaikoura"	
"Bristol City"	2					"Camito"	
"Buteshire"	42					"Bristol City"	
"Coronado"	—					"Buteshire"	
"Cavina"	—					"Coronado"	
"Exeter City"	—					"Cavina"	
"Selvistan"	26					"Exeter City"	
"Berwickshire"	41					"Selvistan"	
"Chicago City"	—					"Berwickshire"	
"Rokos Vergottis"	49					"Chicago City"	
"Boston City"	—					"Rokos Vergottis"	
"Turcoman"	169					"Boston City"	
"Banfishire"	—					"Turcoman"	
"Cornishman"	146					"Banfishire"	
"Bayano"	—					"Cornishman"	
"New York City"	—					"Bayano"	
"Welshman"	65					"New York City"	
"Colonian"	130					"Welshman"	
"Wells City"	—					"Colonian"	
						"Wells City"	

*Poison baits laid.
Certificate given.
Canary Isles require-
ments.

D. S. DAVIES, M.D., *Port Medical Officer of Health.*
JOHN C. HEAVEN, *Assist. Port M.O.H.*

INSPECTING STAFF.

Chief Port Inspector :—

JOHN A. ROBINSON, San. Insp. Exam. Bd., London ;
Meat Insp. Cert., R. San. I. ; Meat Insp. Cert.,
Liverpool Univ. ; San. Science, Liverpool Univ.

Port Sanitary Inspectors :—

E. H. SCORRER, Cert. R. San. I. ; Meat Insp. Cert.
R. San. I.

W. R. GIBBS, Cert. R. San. I. ; Meat Insp. Cert.
R. San. I.

R. M. SCORRER, Cert. R. San. I.

Assistant Port Sanitary Inspectors :—

C. W. GOULD, Cert. R. San. I. ; Meat Insp. Cert.
R. San. I.

J. ROWE.

MEDICAL INSPECTION OF ALIENS.

Annual Return by the Medical Inspector of Aliens for Year ended 31st December, 1925.

Total No. of Aliens arriving at the Port, including those in transit and transmigrants, but excluding Alien Seamen (1)		No. of temporary visitors, i.e., Aliens whose stay in this country will not exceed three months (2)			No. of Aliens who intend to settle permanently or remain in this country for more than three months (3)		
Total Number	No. subjected to medical inspection*	Total Number	No. subjected to medical examination†	No. of Certificates issued	Total Number	No. subjected to medical examination	No. of Certificates issued
429	276	164	—	—	† 75	60	—

ALIENS IN TRANSIT (4)			TRANSMIGRANTS (5)	
Total Number	No. subjected to medical examination†	No. of Certificates issued	Total Number	No. subjected to medical examination†
190	—	—	—	—

* The term "Inspection" relates to the preliminary inspection of aliens to pass before the Medical Inspector —

† The term "Medical Examination" relates to detailed medical inspection —

‡ Included in this total are 11 Diplomats and 4 Residents returning who are exempt from medical examination —

Particulars relating to Detailed Medical Examination of Aliens.

6. Aliens who were subjected to detailed medical examination and were not certified by Medical Inspector	...	...	...	...	60
7. Number of each of the following certificates issued by the Medical Inspector of Aliens :—					
(a) Certificate that an alien is a lunatic, idiot, or mentally deficient	...	...	...	...	—
(b) Certificate that, for medical reasons, it is undesirable that an alien should be permitted to land	...	...	...	...	—
(c) Certified that an alien is suffering from some disease, defect or deformity, which may interfere with his capacity to support himself or his dependents	...	...	...	...	—
(d) Certificate that an alien is suffering from one of the acute infectious diseases	...	...	...	...	—
(e) Certificate that for the purposes of an adequate medical examination, it is necessary for the alien to land in order that he may be examined ashore	...	...	...	...	—

Transmigrants.

8. Number of certificates of the cleansing of verminous transmigrants given by the Medical Inspector of Aliens to the Immigration Officer	...	...	...	...	—
9. Number of medical certificates in respect of transmigrants suffering from trachoma, fevers, etc., given to the Immigration Officer	...	...	...	...	—

Particulars relating to Alien Traffic.

10. Total number of passenger vessels carrying aliens which arrived during the year	...	...	...	...	64
Number of passenger vessels dealt with by Inspector of Aliens	...	...	...	...	50
11. Total number of cargo vessels carrying alien passengers which arrived during the year	...	...	...	...	34
Number of cargo vessels dealt with by Inspector of Aliens	...	...	...	...	—
12. Any other vessels in connection with which the Medical Inspector has had to take action in regard to aliens	...	...	...	...	—

JOHN C. HEAVEN,
L.R.C.P., M.R.C.S., D.P.H.,
Medical Inspector of Aliens.

D. S. DAVIES, M.D.,
Supervising Medical Inspector of Aliens.

BRISTOL PORT SANITARY DISTRICT.

Report of the Chief Port Sanitary Inspector for the Year 1925.

The number of ships inspected at Avonmouth Dock or River entrance during 1925 was	...	...	758
By tug in Walton Bay or Kingroad	...	...	5
		Total	...
			763

Number of ships bound to the Port of Gloucester, 3.

The number inspected in Dock after arrival, 2,267.

The nationality and the number of ships dealt with, and defects found, were as follows :—

Nationality.			No. of Ships.	No. having Defects.
British	...	...	1,826	140
American	...	...	56	2
Danish	...	...	34	2
Dutch	...	...	45	2
French	...	...	29	4
Greek	...	...	16	9
German	...	...	68	3
Italian	...	...	11	6
Japanese	...	...	2	—
Norwegian	...	...	99	7
Spanish	...	...	24	12
Swedish	...	...	50	4
Brazilian	...	...	2	—
Russian	...	...	3	—
Belgian	...	...	2	—
Totals ...			2,267	191

Percentage of the total number, 8.4%

PORT SANITARY.

TABLE A.

Bristol.

SHIP INSPECTION AT BRISTOL, AVONMOUTH, PORTISHEAD AND KINGROAD DURING THE YEAR 1925.

Showing Particulars of Inspection, the Action taken, and results.

FROM FOREIGN PORTS.

Description of Ships.					Forecables, etc. requiring Re-painting	Forecables, etc. in Dirty condition	With Defective Ventilation or Lighting	Foul Bilges or Deposits	Water Closets or Paint Lockers connected with Living Spaces	Defective Closets	Foul Closets	Requiring Lining of Iron Plates over Sleeping Bunks	Bad Water Supply or unclean Tanks	Leakages into Living Spaces	Accumulation of Manure between Decks	Dilapidations in Crews' Spaces	Dirty Galleys	Defective Drainage	Total Sanitary Defects	Informal Notices Complied with	Informal Notices in abeyance	Written Notices Complied with	Written Notices in Abeyance.	Ships Visited or Spoken in Kingroad or River	Revisits to enforce Notices, Health of Crew, and Regulations carried out	No. of Persons Inhabit- ing Ships Inspected	
1925	Steamship	Sailing	British	Foreign																							
British Steamers from Foreign Ports	793	—	793	—	21	55	4	5	1	5	12	—	5	16	5	—	—	—	129	86	1	3	1	248	772	41,892	
British Sailers from Foreign Ports	—	15	15	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	3	3	—	—	—	—	—		
Foreign Steamers from Foreign Ports	430	—	—	430	—	21	2	9	—	3	14	—	3	1	—	1	1	—	55	35	—	1	—	126	288	11,069	
Foreign Sailers from Foreign Ports	—	4	—	4	—	1	—	—	—	—	1	—	—	—	—	—	—	—	2	1	—	—	—	—	12	62	
Totals	1,223	19	808	434	21	80	6	14	1	8	27	—	8	17	5	1	1	—	189	125	1	4	1	374	1,072	53,023	
COASTWISE.																											
British Steamers from Coastwise	672	—	672	—	5	18	—	1	—	1	8	—	—	4	—	—	1	—	38	29	—	—	—	27	121	12,088	
British Sailers from Coastwise	—	346	346	—	—	6	—	2	—	—	—	—	—	—	—	—	—	—	8	8	—	—	—	—	14	1,068	
Foreign Steamers from Coastwise	7	—	—	7	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	—	—	—	—	—	191	
Foreign Sailers from Coastwise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Total Coastwise	679	346	1,018	7	5	24	—	3	—	1	9	—	—	4	—	—	1	—	47	38	—	—	—	27	135	13,347	
Total Foreign	1,223	19	808	434	21	80	6	14	1	8	27	—	8	17	5	1	1	—	189	125	1	4	1	374	1,072	53,023	
Grand Total ...	1,902	365	1,826	441	26	104	6	17	1	9	36	—	8	21	5	1	2	—	236	163	1	4	1	401	1,207	66,370	

No. of these defects which consisted of non-attention to general cleaning and washing operations ... 190
 Total No. of Ships inspected after arrival in the various Docks ... 2267
 Total No. of various defects found in ships inspected ... 236
 No. of ships in which these defects occurred ... 191
 No. of ships in which fumigation was carried out at request of owners, certificates given by Port M.O.H. ... 34
 Total No. of dirty or infected beds destroyed ... 2,225
 Total No. of bilges disinfected ... 104
 Special Rat Precautions on ships from Plague-infected Ports ... 49
 No. of special visits made to ships from "suspected" Ports ... 241

1925

TABLE B.

Class of Vessels.	Number Inspected.	Number having Defects.	No. of Notices Issued.	Per-centage Defective.
From Foreign ...	1,242	131	131	10.5
From Coastwise ...	1,025	38	38	3.7
	2,267	169	169	7.4
British Steamers ...	1,465	120	120	8.2
„ Sailers ...	361	11	11	3.0
	1,826	131	131	7.1
Foreign Steamers ...	437	37	37	8.5
„ Sailers ...	4	1	1	25.0
	441	38	38	8.7

TABLE C.

List of chief Foreign Ports from which ships have
1925 arrived and have been inspected.

Name of Port or District	No. of Vessels	Name of Port or District	No. of Vessels
French ...	114	<i>Brought forward</i> ...	698
Dutch and Belgian ...	81	Newport News and Norfolk, Va....	1
Norwegian, Swedish and Danish ...	74	New Orleans and Gulf of Mexico ...	39
Russian and Finnish ...	44	Jamaica, Port Limon and West Indies ...	52
Spanish and Portuguese ...	125	Philadelphia, Savannah, Boston and Baltimore	34
German... ..	112	Cuba	2
Italian	5	New York and Portland (Me).	60
Greek	4	Canadian Ports ...	80
Alexandria and Malta...	6	River Plate, Bahia Blanco and Rio de Janeiro ...	46
Persian Gulf	5	Manchuria	3
North African	15	Rumanian	1
South „	10	Turkey in Asia ...	7
West „	3	Trinidad	3
East Indies, West Indies, Java and Singapore...	8	Tela, Honduras ...	26
Bombay, Calcutta, Rangoon and Karachi	36	Peru and Chili ...	2
Australia and New Zealand	36	Irish Free State ...	177
San Francisco and Portland (Oregon) ...	20	Channel Islands ...	9
		Black Sea	2
<i>Carried forward</i> ...	698	<i>Total</i> ...	1242

The Port Sanitary Inspectors and Assistant Inspectors have discharged their duties with zeal and thoroughness.

I beg to acknowledge the assistance and information received from the Port Sanitary Officers of Cardiff, Newport, Barry, and Swansea, in following up ships on which requirements had been made.

J. A. ROBINSON,
Chief Port Sanitary Inspector.

D. S. DAVIES, M.D.,
Port Medical Officer of Health.

REPORT OF CANAL BOAT INSPECTION FOR THE YEAR 1925.

I beg to submit a Report in accordance with the requirements of Section 3 of the Canal Boats Act, as to the work done in carrying out the Regulations during the year 1925, with a summary of the contraventions and defects found in the canal boats examined.

1. The duties have been discharged by the Chief Port Sanitary Inspector and an Assistant Inspector, in conjunction with ship inspection work.
2. The number of inspections made was 50, confined to four boats which are used regularly. No women or children are carried on board boats in this district.
3. *Particulars of Inspection*—
 - (a) **Registration.**—All boats have been registered at some time.
 - (b) **Notification of Change of Masters.**—This Authority is not a Registration Authority, consequently no notifications were received.
 - (c) **Certificates.**—Certificates were produced when required.
 - (d) **Marking.**—All boats inspected were properly marked.
 - (e) **Overcrowding.**—None was discovered or reported.
 - (f) **Separation of Sexes.**—No infringement was found.
 - (g) **Cleanliness.**—Cabins were kept fairly clean.
 - (h) **Ventilation.**—The regulation openings were available in all cases.

- (i) **Painting of Cabin Interiors.**—Two notices were served and complied with.
 - (j) **Provision of Water Casks.**—No contravention of the Regulations was found. Two and four gallon stoneware jars are preferred in this district.
 - (k) **Removal of Bilge water.**—Two notices were served and complied with.
 - (l) **Notification of Infectious Disease.**—No cases were found or reported.
 - (m) **Refusal to Admit.**—None.
 - (n) **Dilapidation, etc.**—One notice was served to repair deck and complied with.
4. No legal proceedings have been required.
 5. Two notices were served to paint cabins—these were complied with.
 6. Four notices were served to wash and cleanse—these were complied with.
 7. Two notices were served for bilges to be baled out—these were complied with.
 8. Any cases arising of an infectious nature would be dealt with and isolated by the Port Sanitary Committee.
 9. No detention of boats was required.
 10. No register kept.

J. A. ROBINSON,

*Chief Port Sanitary Inspector
and Inspector of Canal Boats.*

D. S. DAVIES, M.D.,

Port Medical Officer of Health.

PORT OF BRISTOL.

PUBLIC HEALTH (REGULATIONS AS TO FOOD)
ACT, 1907.UNSOUND FOOD AND FOREIGN MEAT REGULATIONS,
1908.FOREIGN MEAT REGULATIONS (AMENDMENT),
1909.

TABLE I.

Amount of Food examined during 1925.

1. Fresh or Frozen Beef. etc.

Frozen beef	...	...	21,073	quarters.
" "	...	...	200	bags.
" tops and ribs	...	...	1,622	bales.
" lamb	...	...	122,575	carcases.
" mutton	...	...	33,483	"
" pork	...	...	9,088	"
" pork sides	...	...	164	bales.
" ox kidneys	...	...	40	boxes.
" ox tails	...	...	40	bags.
" ox tripe	...	...	342	boxes.

2. Cured or Salted Beef and Pork (including Bacon and Hams)

Bacon and Hams	...	...	19,682	cases.
Bacon	...	...	4,797	bales.
Mess Beef	...	...	218	tierces.
" Pork	...	...	95	"
Hog casings	...	...	39	"

3. Canned Meat, Fish, Fruit, Milk, etc.

Canned beef	...	...	10,959	cases.
" hams	...	...	16	"
" mutton	...	...	250	"
" pork	...	...	5,761	"
" pork and beans	...	...	2,360	"
" tripe	...	...	550	"
" ox tongue	...	...	975	"
" pork "	...	...	1,810	"
" sheep "	...	...	1,935	"
" tripe	...	...	350	"
" lobster	...	...	164	"
" pilchards	...	...	852	"
" prawns	...	...	880	"
" salmon	...	...	19,431	"
" sardines	...	...	219	"
" apples	...	...	2,858	"

Canned apricots	...	32,561	cases.
„ „ „	...	451	„
„ asparagus	...	34	„
„ baked beans	...	27,046	„
„ blackberries	...	20	„
„ cherries	...	3,594	„
„ fruit salad	...	10,762	„
„ loganberries	...	10,859	„
„ peaches ...	...	60,403	„
„ pears ...	...	61,863	„
„ peas ...	...	4,632	„
„ pineapple	...	3,796	„
„ plums ...	...	3,312	„
„ raspberries	...	4,155	„
„ strawberries	...	3,175	„
„ tomatoes	...	16,650	„
„ cond. milk	...	142,058	„
„ evaporated milk ...	...	49,019	„

4. Fresh and Dried Fruits and Vegetables, etc.

Apples ...	...	18,451	cases.
„	...	18,119	barrels.
„	...	2,765	tons.
„ evaporated	...	2,000	cases.
Apricots	...	100	„
Apricots, dried	...	7,599	„
Bananas	...	6,135,263	bunches.
Beetroot	...	125	bags.
Cabbage	...	1,363	„
Carrots	...	350	„
Cauliflower in brine	...	738	tierces.
Cherries, desiccated	...	102	cases.
Citron	...	52	„
Currants	...	53,377	„
Figs ...	...	6,517	bags.
„ ...	...	550	boxes.
„ ...	...	338	cases.
Fruit Salad	...	1,561	„
Gherkins in brine	...	363	tierces.
Grapes ...	...	50,869	barrels.
„ ...	...	380	boxes.
Grape Fruit	...	5,698	cases.
Horseradish	...	21	barrels.
Lemons	...	37,206	cases.
Lemon Juice	...	8	pipes.
Lemon Peel	...	857	„
Mandarines	...	4,201	cases.
Mangoes	...	19	„
Melons	...	3,263	„
Muscatels	...	595	„
Onions	...	24,828	bags.
„ ...	...	65,578	cases.
„ ...	...	182	casks.
Oranges	...	387,840	cases.
Orange Juice	...	15	pipes.

Orange Peel	...	...	389	pipes.
Peaches	...	...	880	cases.
Pears	...	...	202	„
„ dried	...	...	975	„
Pineapple	...	...	44	„
Pomegranates	...	.....	2,234	„
Potatoes	...	...	263,504	bags.
„	...	...	1,468	cases.
Prunes	...	...	40,246	„
Raisins	...	...	240,469	„
Sultanas	...	...	29,824	„
Tomatoes	...	...	6,325	„

5. Other Foodstuffs.

Almonds	...	...	855	bags.
„	...	...	4,695	cases.
Apple Pulp	...	...	725	tierces.
Apricot Pulp	...	...	1,371	„
Arrowroot	...	...	2	barrels.
Beans	...	...	174	bags.
Black Currant Pulp	...	...	448	tierces.
Butter	...	...	100,930	boxes.
Chestnuts	...	...	273	sacks.
Chocolate	...	...	1,094	cases.
Cocoanuts	...	...	1,221	bags.
Condensed Milk	...	...	140	barrels.
Cheese	...	...	211,821	boxes.
Currant Pulp (red)	...	...	206	tierces.
Desiccated Coconut	...	...	3,748	cases.
Eggs	...	...	115	„
Egg Yolk	...	...	32	casks.
Gooseberry Pulp	...	...	778	tierces.
Herrings	...	...	50	casks.
Honey	...	...	238	cases.
Ketchup	...	...	38,093	„
Lard	...	...	246,586	boxes.
Macaroni	...	...	15,275	„
Margarine	...	...	9,033	„
Milk Powder	...	...	2,180	cases.
„	...	...	869	casks.
Peas	...	...	12,630	sacks.
Plum Pulp	...	...	218	tierces.
Raspberry Pulp	...	...	459	„
Sauce	...	...	3,050	cases.
Soup	...	...	29,900	„
Strawberry Pulp	...	...	732	tierces.
Suet	...	...	510	casse.
Walnuts	...	...	2,470	bags.
Winkles	...	...	10	„

TABLE II.

Amount of Food found Unsound which was destroyed or otherwise dealt with so as not to be used for human food.

1. Fresh or Frozen Beef, etc.

	tons.	cwts.	qrs.	lbs
Fresh beef 3 carcasses ...		13	2	—
Fresh pork 2 „ ...		2	—	16
Frozen ox kidneys, 11 boxes—				
31 kidneys ...		2	3	4
„ mutton, trimmings ...			2	—
„ lamb „ ...		2	—	17

2. Cured or Salted Beef and Pork.

Bacon 7 bellies ...			1	21
Hams 4 „ ...			1	20

3. Canned Meat and Fruit.

Apricots 61 tins ...		1	—	10
„ pulp 7 „ ...			3	—
Beef 6 „ ...				12
Fruit Salad 8 „ ...				16
Loganberries 602 „ ...		5	1	14
Lunch Tongue 7 „ ...			1	14
Peaches 15 „ ...			1	2
Pears 39 „ ...			2	22
Pineapple 131 „ ...		2	1	10
Plums 57 „ ...		2	—	2
Raspberries 41 „ ...			1	13
Salmon 1 „ ...				1

4. Fish and Dried Fruit and Vegetables, etc.

Currants 179 cases ...	2	4	3	—
Dates 3 „ ...			3	—
Figs 2 „ ...			2	—
Fruit Salad 3 „ ...			3	—
Lemons 86 „ ...	4	6	—	—
Nuts 4 bags ...		4	—	—
Oranges 42 cases ...	2	1	—	—
Pears 2 bags ...		2	—	—
Plums 17 cases ...		8	2	—
Potatoes 95 bags ...	4	15	—	—
Raisins 157 cases, 4 pkts. ...	7	17	—	4
Sultanas 1 „ ...			2	—
Tomatoes 61 „ ...		3	3	7

5. Other Foods.

Barley 43 bushels ...	1	3	3	6
Cooked Tripe 14 cases ...		3	3	2
Flour 108½ sacks ...	11	12	2	—
Lard 5 boxes ...		2	2	—
Maize 94 bushels ...	2	11	—	16
Shredded Wheat 21 cases—				
47 packets ...		13	3	24
Wheat 718 bushels...	19	17	1	24

Samples of Foodstuffs submitted to Analyst.

- (1) Samples of Apples submitted for Arsenic.
- (2) Samples of Dried Fruit for S.O₂.

J. A. ROBINSON, *Chief Port Sanitary Inspector.*

D. S. DAVIES, *Port Medical Officer of Health.*

